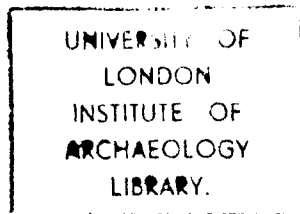


CLASSIFICATION AND ANALYSIS OF ANCIENT MAYA BURIALS
AND BURIAL CUSTOMS

by
William Bruce Maxwell Welsh



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of Ph.D. in the Institute of Archaeology, University College, London

Abstract

The burials and burial customs were analysed in order to learn more about some social and religious aspects of the Classic lowland Maya.

The Maya did not seem to have buried their dead in cemeteries. Instead, burials were made beneath, or adjacent to, their homes. However, buildings that were usually located on the eastern perimeter of residential plazas were built with the sole intention of housing burials. These are called household shrines, and were constructed to accommodate interments of the more eminent inhabitants of these plazas. Residents of the most eminent wealth and status had their burial reserved for temples. The burials of 9 known, and several suspected, Maya kings have been found in temples. In almost every instance of a temple and household shrine burial, some sort of construction, ranging in size from an altar or stair block to an entire temple, was erected as a memorial. Rituals were then conducted on these memorials to commemorate the person buried below. This is apparently a form of ancestor worship or veneration. There are so many buildings and constructions in ceremonial centres associated with interments that, for the Maya at least, monumental architecture was related to the veneration of ancestors.

Evidence also exists for the practice of human sacrifice. Not just one, but four different forms of sacrifice were found. All four may have been related to, and involved with, ancestor veneration. This evidence confirms recent interpretations about sacrifice that were based on ancient art and iconography.

In total, some 20 different burial customs are identified as being Pan Maya. Identification of regional customs was more difficult, and though a few may exist, they are best considered unusually high or low instances of Pan Maya practices.

FOR MY PARENTS

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CHAPTER ONE

INTRODUCTION

Introduction

Death is an inevitable outcome of every human life, indeed, of every living thing. It cannot be avoided. But only human beings, or so we believe, are capable of appreciating this fact. Moreover, human beings believe that somehow or another an individual continues his/her existence in another world after bodily death. One of the earliest indications we have of such belief comes from a Neanderthal burial in Shanidar Cave, Iraq (Solecki 1971). In one of the first instances of the use of pollen analysis, it was found that the group of Neanderthals had been buried with about 8 species of plant, 7 of which could be used for medicinal purposes. Presumably the survivors had expected the plants to "revive" the deceased to a new life elsewhere. That was 60,000 years ago. Since then just about every human culture, if not all, has developed some sort of belief system about life after death. Beliefs vary but they usually entail an existence of another life in another world which is not thought to be terribly different from life on earth. Thus every human society does not consider death as an end in itself so much as an end to existence on this earth and the beginning of a new life in the hereafter, whatever and wherever that may be.

In effect, death is a rite of passage: those rites which accompany the important changes of place, state, social position and age in an individual's life (Van Gennep 1960). These changes are more or less permanent, and though there may be a further change of status at a later date, one is not expected to return to the original state from which one has moved on. The life changes with which rites of passage are normally associated are puberty, marriage, birth of a first child, accession to a throne, entry to a secret society and death.

Every rite of passage consists of 3 phases. The first is the separation of the individual(s) designated to go through the change, i.e. the person set to join a secret society, the couple engaged to be married, or the

person who has died. This is followed by a liminal or transitional phase in which the individual(s) is no longer in the former state but not yet entered the new. This is the period when important rituals are performed, i.e. the marriage ceremony, rituals of accession, initiation rites or funeral rites. The third phase is the final entry of the individual(s) into the new status, i.e. the couple become man and wife, heir to the throne becomes king, or the deceased is finally buried. With respect to death, the rite of passage consists of an individual dying, of rituals being performed to bless the deceased and assist his/her passage to the hereafter, and the burial or cremation of the body to indicate the final separation from the living world and the arrival into the next.

An additional association develops during rites of passage: a change in the relationship between the observers and the participant (victim?). For example, after the initiation into a secret society the entrant learns all the secrets and is treated as a brother. Beforehand, he was an outsider and ignored. After marriage the couple receive property rights, a home and an established role in the community, whereas beforehand they had none. With respect to death, there is a change in the relationship between the deceased and those still living. There are the important matters about who is to take over the property rights, wealth, responsibilities, social position, etc. of the dead individual. Future communication with the deceased in the afterlife may be expected under special conditions and rituals in order to receive advice, give thanks, or ask the ancestor to act as an intermediary in communication with the gods. Thus, death, with all its rituals and repercussions, is an inevitable but very important event in human existence.

Death was no doubt as important an event for the ancient Maya as for any other society. They too believed in an afterworld - Xibalba - and so must surely have established a retinue of customs, practices and rituals

involving burial to ensure a successful transfer from this world to the next. The purpose of the present analysis is to extract and identify, by archaeological means, many of the burial customs and practices of the ancient Maya. Most archaeologically identifiable customs will be those directly related to the manner and placement of burial, the what, how and where of burial. It may even be possible to suggest why in some instances. Ascertaining whether and what rituals occurred at the time of death and interment should also be possible, though precisely what the rituals were is not likely to be evident archaeologically. The importance of death and burial for the ancient Maya will still be revealed.

Background

Lowland Maya burials have been a source of attraction to archaeologists and other investigators for a considerable time. Excavations of burials have been recorded since late last century (e.g. Gordon 1896). Some of the early excavations were more treasure hunts than careful archaeological excavation (e.g. Gann 1916; Gann & Gann 1939). Unfortunately, it has been, and is, common knowledge that burials are a source of some of the most artistically exquisite, and materially most valuable items of the culture. Hence burials have been sought and looted by treasure hunters right up to the present time. Despite this looting and destruction, there has been some careful study of burials by archaeologists during general site excavation. The burials were usually secondary to the main object(s) under study, but the recording and description of them were often of a high standard, e.g. Thompson (1939) at San José, Smith (1950), Ricketson and Ricketson (1937), and Wauchope (1934) at Uaxactún, and more recently, Andrews & Andrews (1980) at Dzibilchaltun, Pendergast (1979 & 1982) at Altun Ha, Haviland (1981, 1985 & in press), Coggins (1975) and a variety

of others at Tikal, Willey et al. (1965) at Barton Ramie, Tourtellot (in press) at Seibal, and Smith (1972) at Altar de Sacrificios. In other instances, burial descriptions have been of a poorer standard often because such excavation was so incidental, e.g. Thompson (1931) at Mountain Cow; the reports were not completed by the original excavator, creating limited and confused descriptions from inadequate communication, e.g. Gordon (1896) at Copan, and Merwin & Vaillant (1932) at Holmul; or because the burials were badly disturbed, e.g. Longyear (1952) at Copan. They nonetheless still provide useful descriptions. Other reports do not, e.g. Moedano (1946) and Pina Chan (1948) on Jaina. Their reports lack vital information on burial context and are too incomplete to be of much use, a rather exasperating consequence because Jaina seems to have had an unusually large number of burials.

The value of these reports, however, is limited. Each is primarily restricted to a description and discussion of the burials at the respective sites. As a result, the uniqueness or universality of some burial customs is not well known nor the general implications completely understood. There have been too few attempts to synthesize and analyze these data generally. In fact, there have only been three.

Ricketson (1925) made the first attempt. But there was too little and too unreliable information to provide any sound conclusions about lowland Maya burial customs. But it was a start. Some 40 years later, Ruz (1968) produced a voluminous tome summarizing many of the burial practices he had observed of the lowland Maya as well as virtually every other ancient, native culture in Mesoamerica. It was a grand piece of work but so all encompassing that many of the finer points became lost. It also lacked precision and provided no defined analytical approach.

Recognizing the shortcomings of Ruz's work, but fully aware of the information that could be extracted from a proper analytical study of Maya

Figure 1: Map of the Maya lowlands
indicating the sites mentioned or
discussed in the text



burials, Rathje (1970) presented us with the third attempt. He did not present any further revision of burial customs. Instead, he outlined a method of analysis and provided a number of hypotheses regarding the social, political and economic implications of Classic, lowland Maya burials. At the time of writing, however, there were still only a limited number of reliable burial data with which to work and therefore his tests and hypotheses could at best be considered tentative. Since his article was written there has been a substantial increase in the amount of burial data, but no further attempt to synthesize and analyze the data as Rathje had done. Given the amount of burial data now available, any synthesis and analysis should prove more fruitful. This work is an attempt to do just this.

There have been, however, unavoidable restrictions placed on the burial data collected. Data from 16 sites were acquired, some published, some not, and with 3 exceptions, all the known burial data for each site. The 3 exceptions are Tikal, Altun Ha and Copan. For Tikal and Altun Ha, all the data were simply not available, but I was provided with substantial unpublished information for both, i.e. Haviland (in press) and Pendergast (in press), to acquire workable samples of 107 burials for Tikal and 255 for Altun Ha. Information on methods of disposing of the dead was not available with some of the Tikal sample, however. With respect to Copan, it has simply not been possible to consult the data from the recent Copan excavations. Consequently, these are not included and I have had to rely on the data from the much earlier Copan excavations, i.e. Gordon (1896) and Longyear (1952). Data from cave burials have not been included either. These were left out for 2 reasons: because few descriptions of such burials were available - Pendergast (1971) being one of the few - though more are now being discovered and described, e.g. Naj Tunich (Brady & Stone 1986) and Loltun (Licón 1986), and I am of the opinion that cave burials may have had a different role and purpose from site burials and should therefore be

considered separately.

It has also been necessary, primarily because of the amount of information, to restrict the chronological and geographical expanse of the analysis. It concentrates on lowland Maya burials of the Late Preclassic and Classic periods. A handful of Postclassic burials are included but only on account of their presence in a few site samples.

The Study

Perusal of any of the previous descriptions of lowland Maya burials would reveal inconsistent and confused definitions of the terminology relating to burials, and of classifications of graves. The first procedure in this study, therefore, was to establish a well defined classification scheme of graves, and to define some of the terms that have been employed in relation to lowland Maya burials.

The second step was to determine the structural context of burials, i.e. classify the type of structure in which they were found. On account of the limited remains of some structures, inadequate descriptions by the excavators, or the simple ambiguity of a building's purpose (and function), it was not always possible to determine the precise nature of some structures containing burials. Determinations were made where possible.

Upon establishing grave type and grave context, all available data relating to date, provenance, skeletal position, and amount and type of grave furniture for every burial in each site were listed in Appendix I. The information includes approximate date, location, structural context, grave type, number of bodies, skeletal position, head orientation, age and sex, presence of skeletal mutilation*, bowl over skull association, shell

*This refers to mutilation done at or after the time of death. It does not refer to skull deformation or dental mutilation which, though interesting, and important in life, were not mortuary customs and so not examined here.

over skull association, urn mode association, and the amount and variety of grave goods. Since these aspects of the burials are discussed, and correlations of some of the data made in the text, such a catalogue is necessary for consultation purposes. Several correlations of the different aspects of burial are made and their significance discussed, but other obvious correlations are not made. The reason is this. It was discovered that grave context was an important factor in burial. The type of building selected for a burial seems to have depended upon an individual's wealth and status. The type of grave and the number and variety of grave goods also depended upon this wealth and status. Correlations clearly demonstrate this. Thus, the type and wealth of graves found, depended on the type of buildings excavated. Site excavation strategy can therefore create a sample error. Consequently, a simple distribution of grave type would be meaningless unless correlated with grave context. The same would apply to the distribution of grave wealth. But a related consequence is that correlation with ceramic phase becomes difficult since any distribution can result, not from any chronological trend, but from the type of structures that were excavated dating to that period. So no correlations with ceramic phase were made.

The next section is an analysis of some of the social implications of the burial data and burial practices. The discussion is enhanced with references to ancient Maya art and iconography, and the ethnohistoric literature to substantiate any claims that are made. Three items receive special attention: the apparent association between an individual's status, grave wealth, and the structural context of the burial; the apparent extent and variety of sacrifice; and the evidence for the practice of ancestor worship. It is in this section that the importance of death and the burial practices are revealed.

The last section consists of a summary of the burial customs dis-

covered. Ruz (1968) already recognized some of them. But I do not simply relist the customs he observed, e.g. jade bead in the mouth. There is little need for doing so. Instead, the discussion concentrates on those practices which became apparent from the present analysis and from which more details and the social implications may be gleaned. I do not seek to relate the customs to Maya mythology. Such a study would be interesting but too voluminous to be undertaken here. The section closes with an attempt to distinguish some of the regional from the pan lowland Maya burial customs.

Finally, in Appendix III, I provide a summary of the burial data of burials that have recently been published but which I was not able to include in the original analysis.

CHAPTER TWO

GRAVE TYPOLOGY

Grave Typology

Numerous definitions of graves have been presented by several authors, but no co-ordinated or consistent typology has been used. Each author has only been concerned with classifying burials or graves within their respective sites. A single term, e.g. cist, often means two different things to different authors. The same applies to crypts, chambers, vaults, vaulted chambers, etc. In other words, there has not been an agreed definition of any grave types and as a result there has not been any consistent application of a specific grave type terminology. It is hoped this may be solved now by establishing a classification scheme of lowland Maya graves based on grave morphology. Before presenting this scheme and its definitions, let us first examine some of the previous ones.

Uaxactún

Ricketson & Ricketson (1937) first explain the conditions in which skeletal material was found at Uaxactún. There were 2 conditions: the inhumation of human remains in graves, to which they refer as burials, and the inhumation of skulls associated with pottery in hollowed out spaces, to which they refer as cists (ibid.: 139). In the former it is evident that a human body had been interred even if the skeleton was not complete, and in the latter it is evident that the burial of skulls alone had a ceremonial purpose (ibid.). I suspect the latter may be indicative of not just ceremony, but also sacrifice. In either case, both should be considered inhumations. The Ricketsons go on to distinguish cist, the inhumation of skulls with pottery in hollowed out spaces, from cache, the scattered and formless placing of objects as an offering that does not have recognizable nor tangible boundaries (ibid.). The essential difference rests with the fact that human remains and tangible outlines may occur with

cists, but not caches.

As useful as these conditions and distinctions of inhumation may be, they are more concerned with grave contents and methods of disposing of the dead rather than grave morphology, and so not quite the information now sought. At least it was a beginning.

It was R.E. Smith who went on to provide a classification of graves from the Uaxactún material. There were 4 types defined as follows (R.E. Smith 1937: 195):

- 1) simple - simple burial signifies the deposition of human remains in the ground or within a structure without any covering protection other than earth or rubble;
 - 2) cist - cist burial is a hollowed out space having a definite boundary within which human remains or other objects were placed with intent, ceremonial or otherwise. The burial was usually secondary, and consisted of bones in a pottery vessel placed in the cist;
 - 3) crypt - crypt burial is a more complicated affair involving the construction of a coffin-shaped grave built of cut stones. The sides, normally made of roughly hewn blocks and mortar, were built on a plastered floor and the chamber was roofed with capstones. The crypt type of mortuary vault varies considerably in length but is generally about 60 cms. broad and 60 cms. deep;
 - 4) burial chambers - burial chambers are the largest mortuary constructions. They are rooms either built especially for the interment or ready made and sealed up after the body has been placed within.
- Smith's definitions seem to be a fairly orderly arrangement. However, he defined cist in terms of methods of disposal of the body, not grave morphology, and the definition of burial chambers is vague and actually refers to 2 types of chamber.

Recognizing some of the shortcomings of his brother's definitions,

A.L. Smith presented a classification which defined 5 types of graves, again based on data from Uaxactún. The 5 types are defined as follows (A.L. Smith 1950: 88; 1972: 212):

- 1) simple - simple grave is an inhumation in an unlined hole in the ground or inclusion of a body in fill during construction;
- 2) cist - it is a grave with definite outlines, usually the sides of an excavation into structural fill, or occasionally sides with stone walls, but no capstones;
- 3) crypt - crypt is a more carefully walled grave with capstones, sometimes a plastered floor, and which may or may not have been filled with earth;
- 4) chamber a - it is a very large chamber specially constructed for mortuary purposes;
- 5) chamber b - it is a large chamber originally constructed for purposes other than mortuary, i.e. as a chultun.

A.L. Smith's definitions are an improvement over R.E. Smith's because he has distinguished the 2 different types of chambers that R.E. Smith did not and each type is defined with reference to grave morphology. The one shortcoming is that the definitions of chamber a and chamber b are somewhat vague. But these are a considerable improvement and this is clearly demonstrated by the fact that most other Mayanists who have since attempted to classify lowland Maya graves have used A.L. Smith's as a basis.

Copan

Longyear presented another typology based upon the Copan excavations of the 1890's (Gordon 1896) and 1938-46 (Longyear 1952). The burials are classified into 2 types, graves and tombs, and defined as follows (Longyear 1952: 35 & 40 and Gordon 1896: 29-30):

- 1) graves - graves at Copan are defined as simple interments not enclosed by

definite boundaries of slabs or cut stones. The bodies and artefacts are placed in a hole dug into the ground and are usually covered up without further mortuary embellishment, although rarely a few boulders may be placed around, or even over, the corpse;

2) tombs - tombs at Copan are usually small chambers, of either slabs and boulders or of squared stone blocks, often containing small niches in the walls and sometimes being roofed by corbeled arches.

Longyear's definitions have more specific references to grave morphology than A.L. Smith's but tend to include too many variables. It would have been better had a distinction been made of simple graves with no definite boundaries from those with a few boulders placed around or over the corpse. A distinction of tombs with corbeled arches from those without should also have been made. The definitions are at least useful and can be improved by distinguishing some of the morphological variables mentioned. This would create more grave types with each type referring to a specific group of morphological attributes. It is also unfortunate that Longyear used the term grave for one of his types because a dictionary definition of grave refers to different types of excavations, holes, or structures made for the interment and accommodation of the dead, not a single, simple type.

Piedras Negras

Next is Coe's classification of graves based on the excavations at Piedras Negras. He classified his graves into 4 types and defined them as follows (Coe 1959: 120):

- 1) simple - an unlined hole in the ground or inclusion of a body in fill during construction - a type and definition borrowed from A.L. Smith;
- 2) covered burial cist - used by Satterthwaite to designate the graves of Burials 2 & 3 at Piedras Negras. These have cover slabs supported by a

single course, rough stone perimeter - and thus corresponds to the A.L. Smith crypt;

3) covered burial chamber - Satterthwaite distinguished this from the preceding by its having a greater vertical distance between the floor of the chamber and its cover. It is again similar to the A.L. Smith definition of crypt but also includes the parameter of greater vertical distance. It is represented by Piedras Negras Burial 1;

4) tomb - a comparatively large mortuary structure with definite walls that rise to a roof that may either be flat or vaulted, and definitely larger than is required to simply lay out a corpse. This type is represented by Burials 5 & 10 and is equivalent to the A.L. Smith chamber a.

The advantages of Coe's scheme are that he confines his definitions to variations in physical attributes and spacial dimension of grave morphology, and bases them on the definitions already established by A.L. Smith. The one problem revolves around the introduction of new terms that in fact refer to previously defined terms of A.L. Smith. It would have been simpler had Coe used the same terminology, but at least he attempts to equate his terms and definitions with A.L. Smith's. Despite the unnecessary new terminology, it is an attempt at consistency.

Dzibilchaltun

Another archaeologist who classified graves on the basis of A.L. Smith's definitions is Andrews V. From the graves discovered at Dzibilchaltun 5 types were distinguished, or so he says, but in fact only four were distinguished (Andrews & Andrews 1980: 314):

1) simple grave - as defined by A.L. Smith;

2) urn burial - remains of an individual in a pottery vessel, most often a large jar, sometimes capped by a lid, or inverted dish or plate. They

usually contained an infant or child and most often rested in an unlined hole in structural fill. They were moderately common throughout the sequence. No skeleton remains in urns ever showed any signs of burning and cremation does not appear to have been practised at any period at Dzibilchaltun;

3) cist - as defined by A.L. Smith;

4) crypt - this type, which in its most characteristic form began during the Copo 1 ceramic phase, remained the preferred type until the Postclassic. There was little variation, except in length, and it is referred to as the standard Copo crypt since over 90% of the examples date from this phase. This type is similar to A.L. Smith's crypt and Coe's covered burial cist.

This typology follows A.L. Smith's without adding any new terminology as Coe had done, and hence goes some way in achieving a measure of consistency. However, identifying urn burial as a grave type makes the same sort of mistake R.E. Smith made with his definition of cist burials: they both actually refer to a method of disposing of a body in a grave, rather than a grave type based on its morphological characteristics.

Toniná

Following their excavation of the site of Toniná, Becquelin and Baudez present their version of a classification of lowland Maya graves. It is as follows (Becquelin & Baudez 1979: 133):

1) fosse (simple) - an unlined hole in the ground or fill;

2) niche (urn burial) - a planned cutting in construction fill in order to receive a cremation urn;

3) ciste (cist) - a box with outlined sidewalls, usually vertically placed stone slabs, and a ceiling of stone blocks;

4) tombe (crypt) - a construction of dry wall masonry (horizontally placed

stone slabs) supporting a flagstone ceiling;

5) tombeau (tomb) - a large vaulted stone chamber.

This is another useful classification which, although not explicitly based on A.L. Smith's definitions, does have some correspondence to his types:- fosse is equivalent to Smith's simple grave, ciste is equivalent to Smith's crypt, tombe is a rather more sophisticated version of Smith's crypt, but still recognizable as such, and tombeau is equivalent to Smith's chamber a. There is nothing equivalent to Smith's chamber b - a chultun - but then none was discovered at Toniná. A.L. Smith's cist type, or what is in fact a pit, is implied in Becquelin's and Baudez's fosse type. Thus, there is some consistency. The one problem is the classification of niche as a grave type. As previously mentioned, an urn burial refers to a method of disposal of a human corpse and is not a reference to grave morphology, and hence should not be included in any grave typology. Otherwise, their typology is useful as applied to Toniná graves.

Seibal

Following extensive excavations at Seibal, Tourtellot presents another classification of Maya graves. The scheme was established to fit the morphology of Seibal graves (Tourtellot: in press), and from this he classifies the graves (receptacles) into 8 types. The definitions are based upon consideration of deliberate intrusion, walling, flooring and covering, and are an extension and subdivision of A.L. Smith's. The scheme is as follows (Tourtellot: in press):

A) Earthen graves

1) simple - an interment contemporary with the surrounding deposit. There is no pit visible, hence, strictly speaking, there is no outline and no grave at all;

- 2) pit - interment in a hole whose outline was visible;
- B) Stone graves
- 3) slab - part of a body lay on a stone slab intentionally placed for it;
- 4) cist - a stone-lined pit;
- 5) cap - an unlined pit containing capstones lying over the skeleton but not resting on the walls of the pit;
- 6) cap-slab - skeleton sandwiched between slabs placed above and below it;
- 7) pit crypt - an unlined pit covered by capstones resting on the sidewalls;
- 8) crypt - a stone lined pit covered by capstones. It is called a head crypt when the stones surrounded the skull area only.

Tourtellot goes on to mention that no tombs or chambers, no urn burials and no evidence of cremation were found at Seibal. So none of these was included in his classification. What we have is a scheme based on A.L. Smith's definitions but with more types in order to account for the additional variety existing at Seibal. Tourtellot is the only one of our authors who takes into account the extensive variety in grave morphology, variety which may be particularly evident at Seibal but which is certainly not exclusive to it. There is here the makings of a rather good classification simply because Tourtellot has based his types and definitions on A.L. Smith's scheme, defined his types on the basis of grave morphology only, and established more types which take into account the variety of grave morphology, a point to which we shall return when discussing the framework of a type-variety classification of lowland Maya graves.

Loten & Pendergast Classification

In an attempt to provide systematic definitions of Maya architectural terms, Loten and Pendergast (1984) also provide brief definitions of a few grave types. These are as follows (Loten & Pendergast 1984: 5-14):

- 1) cist - a small pit, generally with stone lining and cap, used either as a cache container or for storage;
- 2) crypt - a) a chamber for a burial, either built for the purpose or re-used. It houses a burial that does not occupy all the space provided;
b) in northern Yucatan, a masonry lined and capped grave not appreciably larger than the volume of its contents;
- 3) grave - a burial housing that is not appreciably larger than the volume of the contents. A grave may be capped and/or lined with masonry (often re-used facing stones), or may lack these features, whether it is cut into an existing structure and capped by subsequent construction, or is contained within core;
- 4) tomb - an elite interment: the term encompasses the crypt together with its funerary contents and furnishings, including pre and post interment offerings in, on, or by the tomb.

Their definitions are rather different from previous ones. For them, a cist is not even considered a stone-lined container for interments but one for caches or storage. Instead of cist, they use the term grave to apply to stone-lined containers for interments, and in this respect the definition is similar to Coe's covered burial cist, and the Becquelin and Baudiez ciste. But the Loten and Pendergast definition includes graves that may lack stone lined features, leaving a rather flexible morphology in a single definition. As previously noted, a dictionary definition of grave refers to the structure(s), of whatever dimension and construction, made to accommodate the dead, not a single, simple type. Their definition is so loose as to almost imply this but they do not spell it out, and confuse the issue with reference to masonry lining or cap. Such inability to adopt single terms of reference also exists with their definition of tomb, which refers to the contents of a burial as well as the structure housing it, to which they refer as a crypt. Using crypt in the definition makes it unclear (to me) quite

how a tomb is different, especially since their definition of crypt makes no reference to contents. This imprecision leaves confused definitions and confused readers.

Ruz Classifications

No discussion of previous typologies of Maya graves would be complete without commenting on the work of Ruz. Ruz, best known for his discovery of Pacal's tomb in the Temple of Inscriptions, Palenque (Ruz 1954 & 1973), conducted a rather extensive, but nevertheless limited, survey of Maya burial customs (Ruz 1965 & 1968). He provides useful, but general, observations on the types of graves found at many sites, and the prevalent types for each chronological phase. In so doing, he presented 3 different classification schemes. In the first he distinguished 5 types of grave (Ruz 1965: 441):

- 1) simple - merely holes in the ground or in the fill of a building without special features;
- 2) caves or chultuns - funerary use of natural caves and hollows, or cisterns dug in the ground;
- 3) cists - better defined burial than simple ones with crudely constructed walls of stone to outline them, without lids, and generally smaller than an extended body;
- 4) graves - types of coffins constructed of masonry or slabs, with a cover, with or without a stucco floor, and large enough for at least one extended body;
- 5) chambers - rooms of varying size, of at least a man's stature in height, with well constructed masonry walls and vaulted roofs.

This classification is essentially that of A.L. Smith's, which Ruz acknowledges, except that he oddly uses the term grave to designate a burial

receptacle that is effectively equivalent to A.L. Smith's crypt. Why he used the term grave, rather than remain with crypt, is a bit puzzling because grave simply refers to the excavation in the earth for the interment of a body. Its use here is unnecessarily confusing. The one other minor difference between the Ruz and A.L. Smith classifications is that Ruz simply refers to Smith's chamber b as a chultun or cave. I prefer Ruz's terms to Smith's, but six of one.....

In the second classification, Ruz establishes 8 types of interment which are as follows (Ruz 1968: 80-81):

- 1) simple - extended in soil with no borders;
- 2) cave or chultun;
- 3) cist - burial with outlined walls, but rarely with roof or floor. Most often found in mounds or below dwellings;
- 4) tomb with sidewalls, roof and floor of stone;
- 5) room with a structure which becomes selected for funerary purposes;
- 6) sarcophagus of stone with capstone, and which is usually found in a chamber tomb;
- 7) urn burial;
- 8) placing of a body just under the floor of a temple or dwelling.

He then expands this classification into a third one based on the placement of the interred. The classification is as follows (ibid.: 149):

- 1) in soil with no protection;
- 2) in soil with bowl over skull;
- 3) in caves;
- 4) in cenotes;
- 5) in chultuns;
- 6) in house platforms;
- 7) in the interior of ceremonial structures;
- 8) in interior rooms of ceremonial or house structures;

- 9) in funerary mounds;
- 10) in cists;
- 11) in tombs;
- 12) in funerary chambers;
- 13) in sarcophagi;
- 14) in urns.

These 2 classification schemes, however, are confusing. Ruz does not in fact define grave types in either classification. What he has done is mix 2 discrete forms of criteria to produce, first, a type based on where and in what the deceased individuals were placed, and second, a type referring to grave morphology but without actually specifying the morphological details or defining the types. As a result, the classifications are confused and confusing. They are nevertheless of interest because although neither classification defines or classifies graves, burials are classified according to the different methods and places of disposing of the dead.

With Ruz we come to the last individual who has defined graves (or burials). It should be obvious that each person has to some degree defined them in terms of the morphological variation, but most have confused burial with grave, and morphology with method of disposal. A.L. Smith, Tourtellot and Ruz might be possible exceptions to this but each has only concentrated on his respective site, i.e. Uaxactún, Seibal and Palenque, respectively. It is this concentration upon defining graves within one site only that creates problems because there is a tremendous variation of grave morphology between sites, a fact only Tourtellot seems to fully appreciate. Definitions based upon one specific site may not be suitable generally. This rather diminishes the value of the respective classifications, although admittedly consistency was maintained by the definitions being based on those

of A.L. Smith.

However, this propensity to produce grave typologies on the basis of data from individual sites is not the only factor creating difficulty in establishing an overall classification. It is compounded by other authors using terms which are not defined, providing poor and inadequate descriptions, or providing good descriptions but no terminology. At Mountain Cow, for example, Thompson (1931) describes many graves as vaulted chambers without clearly defining what he means by vaulted chamber, and applying the term to graves in which there is either considerable descriptive variety or inadequate description. His description of Vaulted Chamber II, Tzimin Kax (*ibid.*: 295-303), indicates that it is what the term implies. But his description of Vaulted Chamber X, Tzimin Kax (*ibid.*: 317) is of a grave of considerably less sophistication, while the descriptions of Vaulted Chamber IX, Tzimin Kax, and Vaulted Chamber IV, Cahal Cunil (*ibid.*) are too inadequate to ascertain precisely what they are. The same problem exists with Merwin's and Vaillant's (1932) description of Holmul burials, and if anything their description is much worse. Much of the time it is uncertain whether they are referring to pits, chambers, vaults, rooms or whatever else as receptacles for bodies. This particularly applies to the Str. B, Group II burials. Inadequate grave descriptions also prevail in the site descriptions of Copan, Palenque and Tikal (though in the last instance it is because I was unable to acquire much of the data). Then there are those authors who provide good descriptions but rarely classify the graves under any particular term, e.g. Bullard & Bullard (1965) and Ricketson (1931) at Baking Pot, and Pendergast (1979 & 1982) at Altun Ha. This need not create a difficulty so long as the descriptions are good enough to be placed within one's own typology. Although none of the authors ever describes each grave in quite the same way one receives a good enough impression. In any case, establishing a grave typology in these circumstances can be frustrat-

ing.

Caches, Burials, Graves and Interments

Before presenting the grave typology a comment on the difference between caches and burials is necessary. Burials are interments of human skeletal material and associated objects in a grave (A.L. Smith 1972: 212). Cache refers to one or more objects found together and whose grouping and situation, excluding burials, imply intentional interment as an offering (Coe 1959: 77). But there are a few instances in which human remains have been placed in a clearly dedicatory fashion with the usual votive offerings, e.g. Burials E21-23 and A27 at Uaxactún, each consisting of a human skull placed between 2 cache bowls (see Table 103 for other examples). Should such dedicatory offerings be classified as caches or burials? In my opinion, offerings containing human skeletal material should be considered as burials. Why? Because regardless of whether they are dedicatory offerings or not, their presence does inform us of one of the methods of interment or disposal of the dead by the lowland Maya. Thus, I intend to record every interment of skeletal material as a burial, including the skull burials, C-13/34 and C-13/35 of Altun Ha, which were not recorded as burials by Pendergast (1982: 198). An exception to this rule applies to the many problematical deposits, especially at Tikal, which, because of disturbance made to the original primary burial, each now consists of a secondary interment. Having been disturbed, problematical deposits can not really inform us about the original method of interment. Hence, I have ignored most problematical deposits but included some from Seibal, Tikal and Altun Ha, merely to acknowledge their existence. I should also admit that I have simply not been in a position to record most of them.

It is also necessary to spell out the distinction between burial and

grave. Burials are interments of human skeletal material with or without associated objects in a grave (A.L. Smith 1972: 212). Graves are the different types of excavations, holes, pits or receptacles designed to accommodate the dead. The fact that grave and burial refer to two different things has frequently been overlooked by many archaeologists, but the distinction must be kept in mind. Any mode of burial, i.e. method of disposal, may, in principle, occur in any type of grave. It should now be made very clear that the following classification is a grave typology based on grave morphology.

The Classification of Graves

It is apparent from the review of previous grave classifications that these contain differences and inconsistencies. This occurred because each classification was based on the grave morphology from a single site. A comprehensive and consistent typology must draw upon data collected from as many sites as possible. Consequently, my own typology and classification is based on the morphology of 1170 graves from 16 different sites, and although by no means exhaustive it is hoped and expected that the size and variety of the sample will incorporate all the morphological differences in lowland Maya graves.

The classification closely follows the types established by A.L. Smith as well as accounts for the extensive variety revealed by Tourtellot. One way of describing the total morphological range of Maya graves is by a type-variety system of classification. The system consists of types based on defined morphological attributes, and varieties within each type based on minor attribute variations.

The classification is presented below outlining the types, varieties, and respective definitions of each. There are 6 basic types, including an

unknown or unclassifiable category, with 16 varieties (see Appendix II).

Type I) Simple:

Interment in an unlined hole or pit in the ground or structural fill, or inclusion of a body in fill during construction. Any stone that may be present was not intentionally placed for interment, but used if available.

Varieties:

- 1) simple - formless grave in construction fill opportunistically made during structural reconstruction;
- 2) pit - unlined hole or pit dug into soil, bedrock, fill or rubble;
- 3) ceiling slab - the corpse, or portion of it, i.e. the head, rested on stone slab of a pre-existing stone capped grave;
- 4) blocked up room - technically should be included with simple variety but is considered a separate variety to account for the confused descriptions of burials in Rooms 1 to 4, Str. B, Group II, Holmul, and the graves of Burials T1-40, Copan, and 18, Mountain Cow;
- 5) interment placed between existing stone lined graves, benches or room walls and thus forming the illusion of being stone lined when in fact there was no special grave preparation.

Type II) Chultun:

Large chamber originally dug out of the soil and/or bedrock for purposes other than mortuary, and with or without a shaft. No varieties.

Type III) Cist:

Outlined grave consisting of stone lining on at least one of its sidewalls, cap or floor, but rarely, if ever, being completely lined with stone; or intentional placing of stone, frequently haphazard, directly on or around skeleton as a means of separation and protection from other graves. The fact that stone was used distinguishes it from simple graves and because it was not completely stone lined on all sides distinguishes it from crypts. Cists were rarely capped if stone lining was present.

Varieties:

- 1) haphazard cist - randomly piled or placed stones lying directly on, or haphazardly placed around, corpse; probably so placed in order to separate burial from others surrounding it and thus, although the placing of the stones may appear haphazard, the act of placing them was intentional;
- 2) partial cist - use of rough, unshaped stones of rubble fill placed as a partial or incomplete lining around, under or over, body. Rather similar to above variety but less haphazard in appearance. Frequent use of existing structural walls as additional lining to grave;
- 3) head cist - grave in which some sort of stone, mortar or plaster lining has been placed on, under or around cranium of corpse for protection, and with little or no attention paid to protecting the rest of the body;
- 4) capped pit - an unlined, or partly walled pit, partly or totally covered by capstones resting on at least one, but normally both, sidewalls;
- 5) uncapped cist - grave partly or completely lined by a crude ring of unshaped stones, boulders, or rough, vertically placed slabs. Some grave walls may be covered with plaster. None was capped.

Type IV) Crypt:

Grave constructed with partly or completely stone lined walls and always covered by capstones for a ceiling. May or may not have a plastered floor. Some crypts were more complex or elaborate than others by their greater dimensions and/or more carefully placed stones in a more complex stone wall construction, i.e. well cut horizontally placed stone slabs, as opposed to vertically positioned, roughly shaped slabs.

Varieties:

- 1) unspecified crypt - designated as a crypt by excavators but, because of disturbance or inadequate description and illustration, the actual sophistication of construction of the grave is uncertain, though the excavator's implication that the grave was a crypt is accepted, i.e. stone walls with a

capstone;

2) simple crypt - grave whose walls are usually lined, or partly lined, with vertically placed stone slabs or unshaped stones, and roofed with capstones. Walls, floor and capstones may be covered with plaster. Height of 10-75 cms.;

3) elaborate crypt - grave whose walls are lined with stone slabs, often horizontally placed, and capped with cut and dressed capstones. May occasionally have stone floors, niches in walls, and/or benches along side-walls. Walls, floor and/or capstones sometimes covered in plaster. May contain an antechamber. Height is higher than the simple crypt variety, ranging from 40 to 135 cms.

Type V) Tomb:

An elaborate stone lined or rock-cut chamber of considerable dimensions, far exceeding those of the corpse. Usually contains a shaft leading down to the chamber, with an occasional antechamber. Height is sufficient for a human to stand, i.e. ca. 135 cms. or more. Tombs may be vaulted or have vertical walls with a cap. Walls, floor and ceiling are usually plastered and/or painted.

Varieties:

1) unspecified tomb - insufficient description to determine precise nature of construction and/or dimensions, but accept author's implication that it was a tomb;

2) rock-cut tomb - large chamber cut out of bedrock, complete with shaft and steps leading to tomb entrance. Walls and ceiling usually covered in plaster and line paintings;

3) stone lined tomb - large chamber lined with stone and either vaulted or capped with stone slabs. May have shaft and steps leading to chamber.

Type VI) Unclassifiable or Unknown

Graves in which there was insufficient or no information, or they were too

disturbed to determine morphology. Hence, it was not possible to know what these graves were nor how to classify them.

As with any typology this one is not perfect and there are admittedly a few graves which could fit into a couple of varieties. There is an especially fine line between haphazard cist and partial cist, partial cist and uncapped cist, and elaborate crypt and tomb. Graves exist which could fit in either of the above combinations. Nevertheless, although a final decision to place a grave in a specific variety is subjective, I have attempted to follow morphology as closely as possible where description allows, and to classify each grave according to the main morphological characteristics (see grave type illustrations, Appendix II).

Nature of Sample

In constructing this typology, 1170 graves from 16 different sites have been used. This sample, however, is by no means exhaustive. Burials from some of the 16 sites were not included because of either inadequate description of the graves and/or burials, or because the data on some of the graves were not published and not easily obtainable. I did manage, however, to acquire unpublished data on the sites of Seibal*, Altun Ha* and Tikal*, and I have used this information in the sample. I have not used the published data from certain sites, e.g. Quirigua and Colha, because the number of burials at these sites is not enough to provide any significant appraisal of the burial pattern within each site. But the mere three burials from Thompson's excavations at Benque Viejo (1940) are included because of the site's proximity to several other Belizean sites whose graves are also

* see acknowledgements

included in the sample. Together, they may reveal information on regional patterns of burial practice and grave construction. The data on the burials mentioned by Gann (1912, 1916 & 1918), Gann & Gann (1939), and Joyce et al. (1927, 1928 & 1929) were not included because of the inadequate description of burials and graves, and the lack of information regarding context and location of either the burials or the mounds in which the burials were found. Furthermore, Gann's description of burials and burial mounds may not be very reliable because of the imprecise way in which he associates burials with grave goods found in the burial mounds, and because of the absence of any commentary on the possible dating of some burials. None of the burials from Jaina was included because the published data (Moedano 1946 and Pina Chan 1948) do not provide information on grave morphology, burial context, nor possible dates of the burials. Finally, burial data from a few sites that have recently been published appeared too late to be incorporated in the analysis but are listed and commented upon in Appendix III. As a result, my sample is not exhaustive.

The following is a list of the sites comprising the sample, and the number of burials from each site:

- 1) MOUNTAIN COW (Thompson 1931) - 18;
- 2) BAKING POT (Bullard & Bullard 1965; Ricketson 1931; and Willey et al. 1965) - 27 (7, 15, and 5 burials, respectively);
- 3) BARTON RAMIE (Willey et al. 1965) - 114; Burials 2, 3 & 4 of Mound 147 were so mixed I have considered them as a single, multiple burial, 147-2, and not separately as originally published (ibid.: 142 & 554), and Burials 11 & 12 of Mound 123 are considered a single burial of a mother and child, Burial 123-11, as originally suggested but for some reason presented separately (ibid.: 118 & 549);
- 4) BENQUE VIEJO (Thompson 1940) - 3;

- 5) SAN JOSE (Thompson 1939) - 70; Burials B4 & B5 were so mixed they are considered as one burial, B4, and not separately as Thompson had done (ibid.: 199);
- 6) HOLMUL (Merwin & Vaillant 1932) - 22; Burials B17-B19 were so mixed I have considered them as a single, multiple burial, B17, and not as individual interments; Burials B3 & B4, although disturbed, consisted of only one body and should therefore be considered as one burial, B3; and Burials B13 and B14 were so mixed they are best considered as one burial, B13 (ibid.: 29-38);
- 7) UAXACTUN (Ricketson & Ricketson 1937; A.L. Smith 1932, 1937, 1950 and 1973; R.E. Smith 1937; and Wauchope 1934) - 116; Group E burials from Ricketson & Ricketson; Structure A-I burials from R.E. Smith; housemound burials from Wauchope; and the rest from A.L. Smith;
- 8) TIKAL (Adams & Trik 1961; Coe 1962, 1963, 1965, 1965a & 1967; Coe and Broman 1958; Coe & McGinn 1963; Coggins 1975; Haviland (in press); Shook and Kidder 1961; and Trik 1963) - 107;
- 9) ALTUN HA (Pendergast 1969, 1979, 1982 & in press) - 255; includes 2 skull burials, C-13/34 & C-13/35, which were not listed as burials by Pendergast (1982: 198) and a separation of Burial C-23/1 into 3 separate interments, a, b, and c, as implied by Pendergast (ibid.: 250);
- 10) DZIBILCHALTUN (Andrews & Andrews 1980; and Folan 1969) - 116; Burial 96-6 is separated into two burials, 6a and 6b, since the two appear to have been distinct, non-contemporary interments (Andrews & Andrews 1980: 214);
- 11) ALTAR DE SACRIFICIOS (A.L. Smith 1972) - 136;
- 12) SEIBAL (Sabloff 1975; A.L. Smith 1982; Tourtellot 1982 & in press) - 51;

- 13) COPAN (Gordon 1896; and Longyear 1952) - 67; Burials 34 & 35, and 25 & 26, are both considered as contemporary, single, multiple interments, Burials 34 & 25, respectively, rather than individual burials as originally presented (Longyear 1952: 36-37);
- 14) PIEDRAS NEGRAS (Coe 1959) - 11; the infant sacrifice, designated as Lot 16 or Cache R-3-2 by Coe (1959: 95), is listed as Burial 16 here;
- 15) PALENQUE (Blom & LaFarge 1925-27; Rands & Rands 1961; and Ruz 1952, 1952a, 1952b, 1954, 1958, 1958a, 1958b, 1958c, 1962 & 1973) - 32;
- 16) TONINA (Becquelin & Baudez 1979) - 25; there are 25 burials in 21 graves because the graves of the IV-1, IV-2, IV-3 & IV-9 burials were all reused.

Mode of Burial

A point must now be made regarding skull(s) between bowl, and urn burials. Some Mayanists have previously considered and classified urn burials as a separate grave type (Andrews & Andrews 1980; Bullard & Bullard 1965; and Thompson 1939). Others considered and classified skull or infant between bowl burials as the grave type, cist (Ricketson & Ricketson 1937; and R.E. Smith 1937). I do not believe it is correct to do either. Burying an individual in an urn, and a skull or infant between bowls are both methods of disposing of the dead. They are not grave types and not treated as such here. Consequently, urn burials and the interments between bowls are only classified according to the morphology of the graves in which the urns and bowls have been placed. These methods of interment are correlated with grave morphology to see what sort of pattern emerges.

A second point must be made to explain why some multiple interments are considered as a single burial, while others are not. A multiple burial

Table 1: The Distribution of Grave Types per Site

Site Grave Type	Mountain Cow	Baking Pot	Barton Ramie	Benque Viejo	San José	Holmul	Uaxactún	Tikal	Altun Ha	Dzibilchaltun	Altar de Sacrificios	Seibal	Copan	Piedras Negras	Palenque	Toniná
simple	3	21	104	2	68	13	52	37	139	35	125	29	37	5	4	2
chultun	4						3	4		1						
cist	1	3	9	1	1	2	31	21	61	4	8	17	6	1	4	1
crypt	7	2	1		1	7	26	8	42	75	3	3	18	3	19	18
tomb	3						4	16	4	1			3	2	5	2
unclassified		1						21	9			2	3			2

is considered a single interment if the bones were so mixed as to suggest a single, contemporary placing of the bodies in a grave. A multiple burial is considered as a series of separate interments in two possible ways: if the contemporaneity of the placing of the bodies is open to question, such as the case at Toniná where initial burials have been bundled into a grave corner to make way for successive interments, or if there is clearly more than one grave present.

The Distribution of the Graves

Having established a classification of lowland Maya graves, it would seem appropriate to compare the distribution of grave types and varieties from site to site. Table 1 reveals the number of grave types per site, and Table 2, the grave varieties per site.

However, it is not simply the distribution of Maya graves that is wanted. One of the main purposes of this exercise is to correlate grave type with other factors related to burial practices to determine whether there are any significant associations. Indeed, it will become apparent that there is an association between grave type and grave context: a specific grave type is usually found in a specific type of structure, e.g. simple graves in residences and tombs in temples (see chapter 8). On account of this fact, a simple tabulation of grave distribution is not very useful. The resulting distribution would merely indicate the location and the type of structures in which excavation had been concentrated at each site. But a close examination of the locational and structural context of Maya burials can reveal in what sort of mound, structure, plaza, etc., burials have been placed, and the general correspondence existing between specific grave types and specific grave contexts. It is to this we shall direct our attention, and in so doing, we shall check for correspondences

Table 2: The Distribution of Grave Varieties per Site

Variety of Grave Site	simple I:1	pit I:2	ceiling slab I:3	blocked up room I:4	between graves I:5	haphazard cist III:1	partial cist III:2	head cist III:3	capped pit III:4	uncapped cist III:5	unspecified crypt IV:1	simple crypt IV:2	elaborate crypt IV:3	unspecified tomb V:1	rock-cut tomb V:2	stone lined tomb V:3
Mountain Cow	1		1	1						1	2	4	1	2		1
Baking Pot	18	3				3						1	1			
Barton Ramie	70	33	1			4	1	1	2	1		1				
Benque Viejo	2								1							
San José	63	5						1				1				
Holmul	2	1		9	1				2		4	3				
Uaxactún	31	20			1		4	2	11	14		23	3		1	3
Tikal	18	19				6	2		11	2		4	4	4	6	6
Altun Ha	107	25	3		4	9	3	2	26	21		35	7			4
Dzibilchaltun	23	12							1	3		73	2			1
Altar de Sacrificios	104	20	1			2	1	3		2		1	2			

Table 2: The Distribution of Grave Varieties per Site

Variety of Grave																	
Site		simple I:1	pit I:2	ceiling slab I:3	blocked up room I:4	between graves I:5	haphazard cist III:1	partial cist III:2	head cist III:3	capped pit III:4	uncapped cist III:5	unspecified crypt IV:1	simple crypt IV:2	elaborate crypt IV:3	unspecified tomb V:1	rock-cut tomb V:2	stone lined tomb V:3
Seibal	19		10				6	2	6	2	1		3				
Copan	36				1		1	1	1	1	2	1	7	10			3
Piedras Negras	2		3						1				3				2
Palenque			2			2		1					9	4	2		3
Toniná	2										1	2	8	8			2

between grave type and grave context with the various methods or modes of disposal of the dead, i.e. head orientation, body position, skeletal mutilation, bowl over skull and so on. But the correlations concerning grave type will only be made with respect to grave type, not grave variety, for the following reasons:

- 1) There are too many varieties to make a simple correlation. It is much easier to work with 5 types (6 including the unclassified category) rather than 16 varieties.
- 2) Some of the varieties are too few in number, and too limited in geographical range to be of comparative use, e.g. rock-cut tombs, and haphazard, partial and head cists (see Table 2).
- 3) Since specific grave varieties make up the specific grave types, any patterns with a grave variety would be visible with the grave type.

CHAPTER THREE

THE LOCATIONAL AND STRUCTURAL CONTEXT OF THE BURIALS

The Locational and Structural Context of the Burials

Determining the context of the Maya burials has not been a simple procedure. In many instances mounds were poorly described. For example, Thompson (1931: 237) simply states that most burials were found in mounds of square, pyramid shape with floors indicating they served as sub-structures. Such description provides little indication of the purpose, use or function of the mound (structure). Consequently, where descriptions are limited, it is not possible to define the nature of a structure with complete precision. It is more by means of an educated guess. Moreover, some structures, such as ceremonial platforms, temples and household shrines, are similar in appearance and their definitive characteristics can overlap. This is further compounded by the fact that structures may undergo considerable reconstruction and transformation during the periods of their existence. Their form and function may alter considerably. A final problem is that at some sites, the context is purely and simply not known. This is either because no description was provided or many burials were found in a riverbank, modern airfield, or fields outside of the ancient site where the original context was completely obliterated. But despite these difficulties several different contexts were identified.

Firstly, there are housemounds or house platforms. These are small mounds, apsidal or rectangular, with occupational and domestic debris and the occasional posthole which imply the existence of a small, perishable domestic structure. There were hundreds of such structures at every site. They were especially chosen for excavation at Barton Ramie (Willey et al. 1965) and slightly less so at Altar de Sacrificios (Smith 1972), Uaxactún (Wauchope 1934) and Dzibilchaltun (Andrews & Andrews 1980).

Secondly, there are elite or vaulted residences. An elite residence consists of a vaulted structure, usually of one very large room or 2-4 smaller rooms, constructed on a platform with the usual domestic debris.

Since such structures were vaulted, which requires greater expense in construction, these are considered elite residences. This sort of residence was restricted to Dzibilchaltun (see Andrews and Andrews (1980) for their descriptions), Tikal (Str. 5D-46 & 7F-29), and Piedras Negras (Str. V-1).

Thirdly, there are palaces. Palaces are multi-roomed, vaulted buildings, frequently containing central courts and terraces and normally resting upon extensive and substantial platforms. Palaces are not tall, being limited to one or two storeys, but they have a large horizontal expanse. Their use(s) or function(s) are arguable, being either domestic or administrative (see Adams 1970), but their design and appearance are unmistakable. Palace burials were primarily discovered in Str. A-V, Uaxactún, Str. A-I, Altar de Sacrificios, and Str. B4, C4 and C5, San José. A few others were found at Tikal, Dzibilchaltun, Seibal and Piedras Negras.

Not every residence could be classified into one of these types. In some instances, it was not certain whether a structure had been a house platform or a vaulted residence. These are simply considered as residences, e.g. Str. C-16, C-10 and C-21, Altun Ha. In another instance, 5 structures were found that appeared larger than the 2-4 roomed elite residences but smaller than the multi-roomed palaces. These buildings, Str. E-14, E-54, E-51, B-3 & B-5, Altun Ha, are considered palatial residences.

Fourthly, there exists a group of ceremonial and religious buildings which are fairly difficult to distinguish by definition as well as by appearance. These are ceremonial platforms, household shrines and temples. There is considerable overlap in defining them. A temple is a very tall stone building with a large substructure and platform, and usually surmounted by a small, two or more room superstructure with roof comb. Their vertical height is always much greater than their horizontal width. They may vary in size but are always fairly substantial and always located in the central ceremonial precinct of a site. They also tend to contain bur-

ials of some wealth.

Household shrines may have had a similar purpose as temples, but though high and square, they are much smaller, single room structures. They are usually, though not exclusively, found on the east side of residential courts or plazas, sometimes with an altar or a stela (Becker 1971 & 1986; Morley 1983). Regardless of their location, these structures were purpose built units constructed to house burials, usually of some wealth. It is on this basis that household shrines share a similar characteristic and purpose with temples: to house burials and to act as commemorations to some interred. As if simply to create confusion, there also exist small commemorative constructions to the dead that are not exactly like typical household shrines. These are small, altar type structures not attached or associated to any other buildings. Only 3 were found that contained burials, i.e. Units 26d, C-33d and A-30e, all of Seibal. Despite the difference in appearance, their similarity in containing burials suggests they should be considered as household shrines.

The last ceremonial building of this group, ceremonial platforms, are substantial substructures with no definite evidence of any superstructures. But this is frequently not easily determined and many ceremonial platforms may have had superstructures during different phases of their construction. At such times they must have been remarkably similar in appearance, if not function, to temples. Such temple-like, ceremonial platforms are Str. A-I, A-II & B-XI, Uaxactún, and A-II & A-III, Altar de Sacrificios. Although classified as ceremonial platforms here, one could argue for their inclusion as temples.

The remaining 3 contexts in which burials were found were plazas, plaza stelae and temple altars. The plaza context is self-explanatory but the latter two are not. Plaza stelae and temple altar burials are distinguished from plaza and temple burials, respectively, because these burials had a

special purpose. The burials seem to have been placed at the stelae and altars as dedications. Consequently, I have termed them as dedicatory cache burials (see chapter 11). These then are the different contexts in which burials were found.

However, although these types of structures existed at every site, excavation strategies at different sites were not always the same. At some sites excavation was concentrated on the main ceremonial buildings of the central precinct, e.g. Piedras Negras and Palenque. At others a more extensive strategy was adopted and a cross-section of structures was selected, e.g. Uaxactún, Tikal, Altun Ha and Altar de Sacrificios. And at still others, excavation was concentrated on house platforms or residences, e.g. Barton Ramie and Dzibilchaltun. Thus, the structural context in which burials were found depends on the respective site excavation strategies. Since context will be shown to be an important factor in determining the type and wealth of burials, as well as some burial practices, then some of the prevailing practices observed at some sites may be a result of a context bias. This will not negate the importance of what is observed. In fact it may be a blessing because this variation in excavation strategy at different sites should provide the complete variety of Maya burial practices. But it could make certain site comparisons difficult. For example, the customs observed of the housemound burials of Barton Ramie will be rather different from the temple burials of Palenque. The difference will not necessarily be regional, simply contextual. This potential effect must be kept in mind. In the following site by site distribution of burial context, site excavation strategy and potential contextual bias will be evident simply by the number of burials in each context. The possible effect on what is actually observed is discussed under each of the burial practices studied and/or the discussion on pan Maya and regional burial practices (chapter 13).

Mountain Cow

The structural context of the burials at this site was not really summarized by Thompson, and hence only determined here on the basis of his descriptions.

The 7 plaza burials were evidently just that, including the one immediately outside a plaza boundary (Burial 2). The household shrine burials are listed as such because of the similarity in appearance and location of the mounds in which 7 of the 9 household shrine burials were located. The mounds in question, Mounds A of Plazas I & II and the east mound of Plaza XII, all at Tzimin Kax, are poorly described, limited to saying they were mounds of a high and square, pyramid shape, located on the east side of the typical residential plazas (Thompson 1931: 237). This description of high and square mounds on the east side of residential plazas is consistent with Becker's description of household shrines of the Plaza Plan B arrangement (Becker 1971 & 1986; and see Fig. 2). Moreover, the mounds seem to have simply served the purpose of housing the burials, an additional household shrine characteristic. Therefore, I believe the mounds were household shrines.

The other two household shrine burials, Burials 17 & 18 of Mounds N & M, respectively, Hatzcap Ceel, were in mounds of purpose built structures to house the graves (Thompson 1931: 256-57). Though not located on the east side of a plaza these mounds are considered household shrines because of their suggested purpose built role to house the burials.

The remaining 2 burials, Burials 4 & 10 of Mound N, Cahal Cunil, are believed to have been in a residence. Mound N was long and low in shape, typical of a residence platform. Therefore, the 18 burials of this site are composed of 7 from plazas, 9 from household shrines and 2 from a residence (see Table I of Appendix I).

Baking Pot

There is little difficulty determining burial context at this site because the mounds and structures in which the burials were found were either well described or clearly identified by the excavators. The 27 burials were found in the following contexts (see Table II, Appendix I):

- 1) there were 15 burials found in Mound G which, without any superstructure, must have been a ceremonial platform (Ricketson 1931: 7-8);
- 2) 3 were from a housemound (Willey et al. 1965: 306-307);
- 3) 2 were found in a plaza (ibid.: 306);
- 4) there were 5 burials from Str. A, Group II, identified as a temple (Bullard & Bullard 1965: 11);
- 5) 1 was from the temple altar in the same building (ibid.: 15);
- 6) 1 was found in a plaza, in front of the only stela at Baking Pot (ibid.: 16).

Barton Ramie

All of the burials excavated at this site were found in housemounds (see Table III, Appendix I).

Benque Viejo

The 3 burials were all found in Str. B-1. This was a high and square, vaulted building, located on the east side of a residential plaza (Thompson 1940: 2). This suggests to me that it was a household shrine, and therefore the burials are of this context (see Table IV, Appendix I).

San José

On account of the good description and identification of buildings by Thompson (1939), the structural context of the 70 burials at San José is well established. The burials were found in the following contexts (ibid.: 47 ff and see Table V, Appendix I):

- 1) 11 in ceremonial platforms (Str. D1, D2, A5, B3 & B2);
- 2) 25 in residences (Str. C7, B1, A8 & C6);
- 3) 30 in palaces (Str. B4, C4 & C5);
- 4) 4 in a temple (Str. A4).

Holmul

Most of the buildings containing burials at Holmul are not easily distinguished. The excavators seem first to have believed that Str. B, Group II had been a residence which was converted into a burial mound (Merwin and Vaillant 1932: 20), only to later call it a temple (ibid.: 40). The fact that it had a few vaulted rooms, was very high and steep, and contained well furnished caches and burials, characteristics consistent with a temple, suggests this is exactly what it was. It is considered a temple here and its 14 burials comprise the temple burial sample.

Another building, Str. F, Group I, was located on the eastern edge of a plaza. This fact and the claim that it had been intended solely for burial purposes and not converted from a domicile into a tomb (ibid.: 15), suggests that it was a household shrine. So too, I believe, was the mysterious Str. X, 100 metres east of Group I. It had little evidence of occupation, but much evidence of occasional burning and the sealing of the building for burials (ibid.: 50-53). These 2 buildings contained 4 burials and constitute the household shrine burial sample. The remaining 4 burials

were discovered in Str. E & F, Group II, both residences (Merwin & Vaillant 1932: 43-45). Thus there were 14 temple burials, 4 in household shrines and 4 in residences (see Table VI, Appendix I).

Uaxactún

On account of extensive excavation at this site burials were found in several different contexts and with few exceptions the contexts have been well identified. The exceptions are 3 buildings which I have classified as ceremonial platforms, but are virtually indistinguishable from temples. The three, Str. A-I, A-II & B-XI, have large substructures like temples but did not always have superstructures during their respective construction phases (see R.E. Smith 1937 and A.L. Smith 1950). Only because they lacked occasional superstructures have I classified them as ceremonial platforms. It may not be correct but it is one way of distinguishing ceremonial platforms from temples in their appearance. Functionally, however, they may have been the same.

The burials were found in the following contexts (Table VII, Appendix I):

- 1) 21 in housemounds, i.e. in early Str. A-V (Smith 1950: 17-19) and Housemounds I-IV (Wauchope 1934: 137-168);
- 2) 47 in palaces, i.e. Str. A-XVIII (Smith 1937), Str. A-V after its conversion to a palace from a temple, and Str. B-XIII (Smith 1950);
- 3) 16 in plazas;
- 4) 2 near plaza stelaes;
- 5) 5 beneath temple altars, i.e. altars in Group E temples (Ricketson and Ricketson 1937);
- 6) 16 in temples, i.e. Str. C-I, B-VIII, A-XV, and Early Classic Str. A-V (Smith 1950);
- 7) 9 in ceremonial platforms, i.e. Str. A-I, A-II & B-XI.

Tikal

As at Uaxactún, extensive excavation provided burials from several different contexts, and with one exception the contexts are well identified. The exception is Str. 6E-sub.1. Though not on the eastern edge of a plaza, the building initially seems to have served as a household shrine. It contained a well constructed and well furnished grave, Burial 128, and a special burial construction made above the grave. Haviland (forthcoming in T.R. 20) believes the burial was dedicated to the construction, while I believe the construction was a memorial to the burial, as was the case with all other special burial constructions. In any case, thereafter the building seems to have been converted to a residence (ibid.). Since it is not unusual for a building's function to have changed during its history, e.g. Str. A-V, Uaxactún, it may have occurred with this building. Therefore, the context of Burial 128 is believed to have been a household shrine, but as a house platform for the later burials, i.e. Burials 130, 131, 151 & 153.

The burial contexts are as follows (see Table VIII, Appendix I):

- 1) housemound platform - 32 (ibid.);
- 2) elite residence - 3 (Coggins 1975: 309-312; and Haviland (forthcoming in T.R. 22));
- 3) palace - 1 (Coggins 1975: 201-203);
- 4) midden - 3;
- 5) plaza - 5;
- 6) ceremonial platform - 7 (Coe 1965; and Coggins 1975: 93 & 552-585);
- 7) temple - 15 (Adams & Trik 1961; Coe 1963; 1965; & 1965a; and Coggins 1975);
- 8) household shrine - 41 (Coggins 1975; Haviland 1981 and forthcoming in T.R. 20 & 22).

Altun Ha

As at Uaxactún and Tikal, excavation at Altun Ha has unearthed burials in several different contexts. However, description of many residential buildings was limited. It was not possible to distinguish whether some buildings were house platforms or elite residences. As a result, I simply classified all of them as residences. Another 5 residences were described as being of a larger size than 2-4 roomed vaulted residences but smaller than multi-roomed palaces. I have classified these as palatial residences.

Thus, the burial contexts are as follows (see Table IX, Appendix I and Pendergast 1979; 1982; and in press):

- 1) ceremonial platform (Str. C-13 & B-6) - 35;
- 2) plaza - 1;
- 3) temple (Str. A-3, A-1, A-5, A-8, A-6 & B-4) - 25;
- 4) household shrine (Str. C-6, E-1 & E-7) - 53;
- 5) residence (Str. C-10, C-16, C-18, C-22, C-23, C-43, C-44, D-2, D-10, E-2, E-3, E-5, E-13 & E-21) - 116;
- 6) palatial residence (Str. E-14, E-51, E-54, B-3 & B-5) - 25.

Dzibilchaltun

Although extensive excavation was conducted at Dzibilchaltun in a good cross-section of structures, most burials were in fact discovered in what seem to have been some form of residential platform or building, 98/116 burials to be precise. Unfortunately, a few buildings, Str. 225, 226, 450 and 500, had very limited remains and are very difficult to identify. Str. 450 consisted of a massive platform and stepped pyramid structure (Andrews and Andrews 1980: Fig. 41) and Str. 500 of a massive platform and small pyramidal structure (ibid.: 41 & 56). Neither was residential but it is not clear what sort of ceremonial building they were. I classify them both

as ceremonial platforms because their appearance, location and lack of commemorative burials would suggest they were neither temples nor household shrines. Str. 225 & 226 are presumed to be residences, not because they were positively identified as such but more because they were not obviously anything else, i.e. temple, ceremonial platform or household shrine. Use of negative evidence in these examples is not the most satisfactory way of identifying buildings, but it is if there is no alternative.

The burial contexts are as follows (Andrews & Andrews 1980 and Table X, Appendix I):

- 1) temples (Str. 6) - 1;
- 2) household shrines (Str. 612, 6969, 38 & 38-sub.) - 13;
- 3) ceremonial platforms (Str. 12, 450 & 500) - 4;
- 4) palaces (Str. 55) - 2;
- 5) vaulted residences (Str. 57, 95, 384, 385, etc.) - 56;
- 6) residences (Str. 605, 6965, 825, 226, etc.) - 40.

Altar de Sacrificios

This is yet another site that received extensive excavation thereby providing a large number of burials in a variety of contexts. Except for Str. A-II & A-III, the nature of the buildings was clearly identified. Str. A-II & A-III are classified as ceremonial platforms here, not temples, because no superstructure existed during several construction phases (Smith 1972: 119-121 & 212-213). However, they may have served as temples. In any case, the burial contexts are as follows (Smith 1972 and Table XI, Appendix I):

- 1) house platform - 53;
- 2) plaza - 4;
- 3) palace (Str. A-I) - 37;

- 4) temple (Str. B-I, B-II & B-III) - 11;
- 5) ceremonial platform (Str. A-II, A-III & C-I) - 31.

Seibal

The Seibal burials were found in the following contexts (see Tourtellot (in press), and Table XII, Appendix I):

- 1) house platform - 27;
- 2) palace (Str. A-14 & D-3) - 2;
- 3) midden - 1;
- 4) plaza - 6;
- 5) ceremonial platform (Str. A-2, A-13, C-10 & D-24) - 4;
- 6) household shrine (Str. 4E-10, A-30e, 26d & C-33d) - 11.

With the exception of the household shrines, the burials are listed in the contexts ascribed by Tourtellot (*ibid.*). The 4 buildings that comprise the household shrines were listed either as Class C altar shrines, i.e. Str. A-30e, 26d & C-33d, or as a temple, i.e. Str. 4E-10 (*ibid.*). However, I believe that since Str. 4E-10 was located on the fringe of the site rather than the central precinct, it should be classified a household shrine. As for the Class C altar shrines, although of a different appearance to household shrines of other sites, they served a similar role in housing and commemorating burials of some important individuals. Therefore, in order to maintain consistency I stick with the term, household shrine.

Copan

The published excavations carried out at Copan (Gordon 1896 & Longyear 1952) have not been as thorough nor as extensive as the more recent excav-

ations of the Copan Project, the data of which I have been unable to consult. The Gordon and Longyear excavations were conducted in areas in which little or no description of the mounds or structures was given, Mounds 30 and 36, or carried out in the old riverbank and landing field where the original contexts have been completely obliterated. Consequently, only the context of the 13 plaza burials is known for sure. The 21 burials from Mounds 30 and 36 are presumed to be from a housemound. With limited description I simply must accept Longyear's assertion that they probably were (Longyear 1952: 35). The context of the 33 burials from the landing field and riverbank is not known (see Table XIII, Appendix I).

Piedras Negras

The 11 burials from this site were excavated in the main ceremonial precinct. The burial contexts are as follows (see Coe 1959; Satterthwaite 1943-54; and Table XIV, Appendix I):

- 1) cave - 1;
- 2) plaza - 1;
- 3) elite residence (Str. V-1) - 3;
- 4) ceremonial platform (Str. R-2) - 1;
- 5) temple platform (Str. R-3) - 3;
- 6) ball court (Str. K-6) - 1;
- 7) palace (Str. J-5) - 1.

One problem exists with Str. J-5. It was not actually defined by Satterthwaite (ibid.). However, its description suggests a palace acropolis. The wealth of its burial suggests a temple complex. To be on the side of caution and convention, I have classified it as a palace acropolis.

Palenque

Excavation at Palenque has unfortunately been rather haphazard and there has not really been any grand excavation strategy adopted for the site (see Ruz 1958, 1958a, 1958b, 1958c & 1973; Blom & LaFarge 1925-27; and Rands & Rands 1961). Each of their projects had a limited scope. Ruz concentrated on burials in temple complexes, the Rands on a presumed cemetery, and Blom & LaFarge on nothing in particular. Consequently, the contexts in which the burials were discovered is limited, and unknown in the case of the platforms of the Rands, and Blom & LaFarge. Thus, the burial contexts are as follows (see Table XV, Appendix I):

- 1) temples - 13;
- 2) plaza - 2;
- 3) unknown - 17.

Toniná

The French excavation of Toniná (Becquelin & Baudez 1979), although very thorough, was not very extensive. Excavation was concentrated on the main acropolis area and thus the burials were found in a limited number of contexts. These are as follows (see Table XVI, Appendix I, and because of the reuse of 4 graves it must be remembered that 25 burials were found in 21 graves):

- 1) residence - 11;
- 2) plaza - 5 burials in 3 graves;
- 3) temple - 9 burials in 7 graves.

The burials listed in a plaza context is slightly spurious. In fact, these burials were located in the terrace of a temple. I list them as plaza burials to distinguish them from the burials of the same terrace but found under the special pedestal constructions, Str. E5-10, E5-13, E5-15 & E5-8.

CHAPTER FOUR

METHODS OF DISPOSAL OF THE DEAD

Methods of Disposal of the Dead

A quick perusal of the tables in Appendix I reveals a considerable amount of data that comprise the methods and manner of disposing of the dead. This includes whether a burial is primary or secondary, the number of bodies, the head orientation, the position of the interred, the presence of an urn to contain the body, evidence of skeletal mutilation and, finally, the presence of pots or shells (conch) placed over or under the skulls of the deceased. The first to be considered are primary and secondary burials and the distinction between them.

Primary and Secondary Burials

A primary burial is one in which the skeletal remains of one or more individuals are more or less complete and articulated. The body should not have been manipulated after death nor before burial.

A secondary burial, on the other hand, is one in which the skeleton has been intentionally disarticulated and been moved or manipulated after death, but before burial. The skeleton may be complete, but rarely is, and frequently has received some form of mutilation, e.g. decapitation, removal of femurs, or consists of only a skull. Interments placed in urns or between bowls, either the entire body or skull(s) only, are also considered secondary, e.g. Burials 124-1, Barton Ramie, B7, Baking Pot, and E10, E1, and E21, Uaxactún (see Appendix I). In such instances the bodies were obviously manipulated after death but before burial.

There are 4 types of instances in which burials have been disturbed or the bodies manipulated but which are still considered primary. The first type consists of headless bodies, i.e. Burials R4 & R5, Baking Pot, C-16/22, C-22/2 & C-22/5, Altun Ha, 450-1, 605-3 & 226-3, Dzibilchaltun, and 108, 89, 79 & 66, Altar de Sacrificios, in which it is unclear whether

the missing skulls were a result of poor preservation, death by sacrifice or removal after death. Given the ambiguity, they are considered primary. The second type consists of bodies with a leg or facial bones removed, i.e. 260-3, Barton Ramie, C1 & A20, Uxactún, and 7-46, Copan. Such removal probably occurred after death but because the original excavators seem to have considered the burials primary I have followed their terminology (e.g. Smith 1950: Table 6).

The third type applies to 4 multiple burials at Toniná, Burials IV-6, IV-2, IV-3 & IV-9, and possibly 4 more at Palenque, Burials R7, R3, R5 & S2 (see Appendix I). In fact, these are only multiple burials because the graves were reused for successive interments. For each successive burial the previous occupant (skeleton) was bundled into a corner to make way for the new occupant. Though the bundles were found disarticulated, they were not originally intended to be so. Hence they are considered primary. The fourth type consists of burials in which poor preservation, or natural or excavation disturbance of the grave(s) made it difficult to ascertain whether the burial was primary or not. There are about 110 such burials, often of a single child. These are considered primary because there is no indication of deliberate manipulation of the bodies and the original excavators seem to have considered them primary.

These 4 types of interment demonstrate the difficulty in distinguishing primary from secondary burial. The distinction was not always made clear by the original excavators but I follow their interpretations where possible. Otherwise I only consider a burial as secondary if there is unambiguous evidence for manipulation after death.

In the accompanying table (Table 3) primary and secondary burials have been classified and distinguished as described, but some additional comment is required about the categories. A few multiple burials consist of a primary interment accompanied by a contemporary placed, secondary interred,

Table 3: The number of primary & secondary, single or multiple, interments per site. Includes the number of cremations and empty graves found in the sample.

Site	No. of Primary Burials	Single Individuals	Two Individuals	Multiple Interments	No. of Secondary Burials	Single Individuals	Two Individuals	Multiple Interments	Cremations	Empty Graves	No Data
Mountain Cow	8	7	-	1	8	-	-	5	2	1	-
Baking Pot	25	25	-	-	1	1	-	-	-	-	1
Barton Ramie	112	110	1	1	1	1	-	-	-	-	1
Benque Viejo	3	3	-	-	-	-	-	-	-	-	-
San José	63	62	1	-	5	4	1	-	-	-	2
Holmul	20	18	1	1	2	2	-	-	-	-	-
Uaxactún	97	93	3	1	17	17	-	-	-	-	2
Tikal	88	77	5	6	15	8	3	3	1	-	8
Altun Ha	219	176	34	9	43	25	11	7	-	-	2
Dzibilchaltun	59	47	6	6	32	17	7	6	-	31	-
Altar de Sac.	128	122	5	1	8	7	1	-	-	-	-
Seibal	44	41	2	1	4	3	-	1	-	-	4
Copan	61	54	6	1	-	-	-	-	-	-	6
Piedras Negras	8	6	1	1	2	2	-	-	-	-	1
Palenque	20	12	7	1	6	-	5	1	-	-	11
Toniná	17	13	1	3	2	1	-	1	3	-	3
Total	972	866	73	33	146	88	28	24	6	32	41

e.g. Burials 5, Mountain Cow, C-13/5, C-13/10, C-13/8 & E-7/2, Altun Ha, 167, Tikal, and 95-2 & 6969-1, Dzibilchaltun. Such burials are considered primary and secondary, and counted twice, since the graves contained contemporary, primary and secondary interred. The empty graves category refers to those that contained no evidence of there having been human remains. Whether the graves had been looted or never used is uncertain. With 31/32 examples found at Dzibilchaltun, this category seems to be more or less confined to there. The no data category refers to 3 sorts of burial: those which I was unable to acquire information on the manner of disposal (Tikal); those in which it was not recorded (primarily at Palenque); and those which were found but not, or only partially, excavated.

This, then, is how primary and secondary burials were distinguished and tabulated. Though there may be some room for argument about the classification, I have followed original classifications where possible. In any case, an absolute distinction between primary and secondary burials, though desirable, is not all that important nor always possible. It should merely be noted that both occur. What is important is that some burials, mainly secondary but also primary, reveal the presence of sacrifice, a practice whose implications will be discussed below (chapter 11). Finally, it should be noted from Table 3 that inhumation, not cremation, was the fashionable way of dealing with the dead during the Preclassic and Classic periods.

Single and Multiple Interments

Table 3 also indicates a second aspect of burials: whether they are single or multiple. Single interments are by far and away the most common, especially primary, single burials. They were the prevalent mode at every site and with 866 of them, accounted for about 74% of the burials. (Even if the 110 disturbed or badly preserved burials and the dozen or so ambig-

uous interments that have been considered primary are not included, 63% would still be definitely primary and single.) So single interment seems to have been the most common way to be buried, with the possible exception of wealthy individuals or sacrificial victims (see below and chapter 11). The remaining, and far fewer, single burials (88) were secondary and seem to have been sacrificial in nature. Several consisted of single skulls, e.g. Burials C-13/34 & C-13/35, Altun Ha, and 49 & 85, Altar de Sacrificios, or single skulls or single bodies placed between bowls, e.g. Burials A8, San José, E21, E22 & E23, Uaxactún, and 122, 123 & 126, Tikal.

The multiple, primary interments seem to be of 2 types. The first is what appear to be mother-child or parent-child burials, e.g. Burials 123-11, Barton Ramie, E15 & A44, Uaxactún, E-7/27 & E-3/2, Altun Ha, 11 & 36, Altar de Sacrificios, and 10 & 35, Seibal. A few contained more than one parent or more than one child, and may imply sacrifice (see chapter 11). The second type is more clearly sacrificial and consists of primary interred individuals accompanied by secondary interments. The primary interred were usually of some wealth while the secondary interred frequently consisted only of skulls, e.g. Burials 166, Tikal, and 6969-1 & 38-sub.2, Dzibilchaltun. This also accounts for many of the multiple, secondary interments, since the burials were multiple and secondary as well as multiple and primary. The remaining interments which were multiple and secondary only, consist solely of a number of skulls or mandibles and so seem to have been sacrificial too, e.g. Burials 8 & 16, Mountain Cow, and 4, Seibal. This sacrificial aspect will be discussed fully below (chapter 11). For the moment this outline of the sort of interments found is sufficient.

Skeletal Position

The third aspect of disposal of the dead to be examined is skeletal

position. On account of poor preservation or disturbance of some graves the position of the skeletons has not always been discerned, but it has been found that individuals were placed in a variety of flexed or extended positions, e.g. flexed left or right, or extended supine or prone. Occasionally a few were found to be seated. It was decided to correlate body position with grave type because it is believed this will demonstrate that either the position of the body determined the size of the grave, or the size of the grave determined the position of the body. We are obviously not in a position to ascertain which determined which, but a correlation should be apparent if one influenced the other. It is expected that an extended position, which requires more space, should be found in larger graves (crypts and tombs), while a flexed position, requiring less space, should be found in smaller graves (simple and cists). A correlation is made for each site. In so doing, any site preferences for a specific position(s) of the deceased, regardless of grave type and size, should be visible.

Mountain Cow

There were only 8 individuals whose positions were determined: 4 flexed, 3 seated, and 1 extended (Table 4). Contrary to what I have suggested, the one extended body was in a small simple grave and the four flexed were in larger crypts (2) and chultuns (2). All three seated skeletons were in crypts. The sample, however, is really too small to be informative, and does not tell us if there was a preferred position.

Baking Pot

In contrast to Mountain Cow, the data on skeletal position are more

Table 4: Skeletal position per grave type at Mountain Cow

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed				1			1
flexed left		1		1			2
flexed right		1					1
extended	1						1
seated				3			3
total	1	2		5			8

Table 5: Skeletal position per grave type at Baking Pot

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed left	1						1
flexed right	1						1
extended	3						3
ext. supine	2		1				3
ext. prone	12		2	1			15
total	19		3	1			23

Table 6: Skeletal position per grave type at Barton Ramie

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed supine	1						1
extended	9						9
ext. supine	7		1				8
ext. prone	69		5	1			75
seated	4		3				7
total	90		9	1			100

Table 7: Skeletal position per grave type at San José

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed	6						6
flexed left	16		1				17
flexed right	18						18
flexed supine	3						3
flexed prone	1						1
left	1						1
ext. supine	8						8
seated	1						1
total	54		1				55

revealing and numerous at Baking Pot. Of the 23 individuals whose positions were noted, 21 were extended and 15/21 extended were in an extended prone position (Table 5). Since both extended and extended prone burials were found in every one of the grave types at the site - though only 4 individuals whose body position was known were not in simple graves - then extended, and slightly less so, extended prone, seem to have been the preferred positions for interment. Position was not dependent on grave size or construction because flexed, not extended, should have been the preferred position for this to be true.

Barton Ramie

A similar picture to Baking Pot exists at Barton Ramie. The extended and extended prone positions were preferred for every grave type (Table 6), though again there were few (only 10) to compare in non-simple graves. Still, with 75% of individuals buried in an extended prone position and 92% in an extended position, it strongly suggests these positions were preferred despite grave size or type.

Benque Viejo

The site sample consists only of three and so can hardly be considered informative (Table IV, Appendix I).

San José

Unlike Baking Pot and Barton Ramie, the extended position does not prevail. There are not even any extended prone burials. Instead, the flexed position prevails with 45/55 skeletons so positioned, the majority

Table 8: Skeletal position per grave type at Holmul

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed				1			1
flexed left	4			1			5
flexed right	2			1			3
ext. supine	4			1			5
ext. prone	1						1
total	11			4			15

Table 9: Skeletal position per grave type at Uaxactún

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed	3	1	2	2			8
flexed left	6		8	3			17
flexed right	6	1	14	6	1		28
flexed supine	2	1	1	2			6
flexed prone	2		2				4
extended	1				1		2
ext. supine	4		2	10	3		19
ext. prone	4			1			5
supine	1						1
seated				1			1
total	29	3	29	25	5		91

of them to the right (18) or left (17) (Table 7). Since all 45 were in simple graves or cists, this conforms to the expected pattern of flexed skeletons being placed in smaller graves. But there were no bodies found in larger graves or crypts and tombs, and it is therefore difficult to determine whether the flexed position was a site preference or a result of the smaller dimensions of simple graves.

Holmul

The Holmul sample continues with this problem of too few bodies in different types of grave. Eleven of the fifteen skeletons whose position was determined were in only one grave type: simple. Nevertheless, since both flexed and extended positions were adopted in simple graves, 6 & 5, respectively, and crypts, 3 & 1, respectively (Table 8), no correlation between a grave type and a position exists. With 9/15 skeletons in a flexed position, this may imply a site preference. But the sample is frankly too small to be reliable.

Uaxactún

This site provides a large sample of skeletons in known body positions (91) from a variety of graves. Table 9 reveals the following. The flexed position seems to have been preferred with 63/91 individuals so interred. Only 26 were extended but 15 of these were in the larger crypts and tombs (11 and 4, respectively), and the one seated individual, a position requiring more space than flexed, also appeared in a larger crypt. So with 46/63 flexed skeletons in the smaller cists and simple graves, then this follows the expected pattern of flexed bodies in smaller graves, and with 15/27 extended skeletons in the crypts and tombs this follows the expected

Table 10: Skeletal position per grave type at Tikal

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
left	3		1				4
right	2						2
supine	3	1	8	1			13
prone	1			1			2
flexed	1		1				2
flexed left	2		1	1		1	5
flexed right	8	1	2				11
flexed supine		1					1
extended	2		1	1	3		7
ext. supine	2		5	2	5		14
ext. prone		1					1
seated	1		1	1	2		5
total	25	4	20	7	10	1	67

pattern of extended bodies in larger graves. Therefore, we have a probable correlation of grave type and size with expected skeletal position at Uaxactún. But with flexed skeletons outnumbering the extended by more than 2:1, the flexed position was still preferred and often adopted regardless of grave type.

Tikal

A useful number of skeletons in a known position in every grave type is found at Tikal. Firstly, 22 individuals were extended (14 extended supine), and 19 were flexed. On this basis there does not seem to have been a preferred position. However, several individuals were merely listed as being left, right, supine or prone (Table 10). I suspect that individuals who were left or right were also flexed and the supine or prone skeletons were also extended, since flexed bodies were normally on the left or right side and extended on backs or fronts. This may or may not be true, but if so this would make 25 flexed (13 flexed right), and 37 extended (27 extended supine). If this is the case, then with 37/67 extended skeletons, the extended (and extended supine) was preferred.

But is there a correlation between skeletal position and grave size, the extended in larger graves and the flexed in smaller ones? This is sort of suggested with 15/19 flexed, or 21/25 probably flexed bodies appearing in simple graves and cists. Only one was found in a crypt and none in tombs. But the extended burials do not conform as only 11/22 extended individuals appeared in crypts or tombs, and only 13/37 of the probably extended individuals, the opposite of what would be expected. So position may or may not be related to grave type and size, but extended was the preferred position at the site.

Table 11: Skeletal position per grave type at Altun Ha

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
prone	1						1
flexed left	1		1				2
flexed right	7		2				9
flexed supine	5						5
flexed prone	1						1
extended	15		7	7			29
ext. supine	42		38	25	4	1	110
ext. prone	15		9	6			30
seated	2						2
total	89		57	38	4	1	189

Table 12: Skeletal position per grave type at Dzibilchaltun

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed	4			4			8
flexed left	2						2
flexed right	2						2
flexed prone	1						1
extended	2	1	2	23	2		30
ext. supine	4			8			12
seated				1			1
total	15	1	2	36	2		56

Altun Ha

Altun Ha provides the largest sample from any site and a very clear pattern. There was a very definite preference for bodies to have been placed in an extended position (Table 11). A total of 169/189 individuals was extended. This is a considerable proportion. The preferred extended position was supine with 110 bodies so placed. Given such proportions and the fact that an extended position was preferred in every grave type (Table 11), then position was not affected by grave dimension or type.

Dzibilchaltun

The extended position also appears to have been preferred at Dzibilchaltun. No less than 42/58 skeletons were extended (Table 12). Most of them, however, were in crypts (31), and the only known position of bodies in tombs was extended. Given this and the fact that 9/13 flexed skeletons were in the smaller cists and simple graves, a correlation exists between grave size and type, and skeletal position. The prevalence of the extended position also correlates well with the prevalence of crypts at the site (Table 1).

It is unfortunate that the Dzibilchaltun sample has such a large number of graves that had been looted or never used. Thirty-one such graves exist that were simply empty upon discovery (Table 3 & Appendix I). Their existence is unique, and to say the least, curious. If they had been used data on the skeletal position would have been useful.

Altar de Sacrificios

This large site sample reveals that the flexed position seems to have been the preferred position for the deceased. A total of 78/113 bodies

Table 13: Skeletal position per grave type at Altar de Sacrificios

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed	7						7
flexed left	20		2				22
flexed right	25		1				26
flexed supine	18		3				21
flexed prone	2						2
ext. left	1						1
ext. supine	26		2	2			30
seated	3			1			4
total	102		8	3			113

Table 14: Skeletal position per grave type at Seibal

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed left	6		2				8
flexed right	5		5	1			11
extended	6						6
ext. supine	2		5	2			9
seated			1				1
supine	1						1
total	20		13	3			36

were placed in a flexed position (Table 13). Flexed left (22), right (26), or supine (21) were comparably preferred. Unfortunately, since 102/113 skeletons whose positions were observed were found in the smaller simple graves - 110 if one includes those in cists - the flexed position may not be a preference but a prevalence resulting from the high incidence of simple graves, a type of grave in which a flexed position would be expected. Those not in simple graves are too few to provide a meaningful comparison.

Seibal

The flexed and extended positions appear in near equal numbers at Seibal, with 19 and 15, respectively (Table 14). Given the comparable numbers there was obviously no preference. Moreover, because both flexed and extended skeletons appear in roughly equal numbers in each type of grave, 11:8, 7:5, 1:2, respectively, for simple, cist and crypt, grave type does not seem to have been a factor in affecting position.

Copan

The flexed position seems to have been the prevailing position of interment with 26/41 skeletons (Table 15). It was the prevailing position in every grave type except tombs in which 3 individuals were determined to have been extended. Since the flexed position predominates in smaller cist and simple graves, 15/23, and extended in larger tombs, 3/3, position may be correlated with grave type and size. However, 11/15 bodies in crypts were flexed, larger graves in which one might expect extended skeletons. So the flexed position may have been the site preference for burial.

Table 15: Skeletal position per grave type at Copan

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed	3			10			13
flexed left	4			1			5
flexed right	4		2				6
flexed supine	1		1				2
extended	1		1				2
ext. supine	3			2	3		8
ext. prone	1			1			2
seated	2			1			3
total	19		4	15	3		41

Table 16: Skeletal position per grave type at Piedras Negras

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
left					1		1
extended			1	2			3
ext. supine	2			2	2		6
total	2		1	4	3		10

Table 17: Skeletal position per grave type at Palenque

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
flexed	1		2		2		5
supine	1						1
extended			1	8	1		10
ext. supine				1	2		3
seated					1		1
total	2		3	9	6		20

Table 18: Skeletal position per grave type at Toniná

Grave Type Skeletal Position	simple	chultun	cist	crypt	tomb	unclassified	total
ext. supine	2			8		1	11
seated				1			1
total	2			9		1	12

Piedras Negras

The position of only 10 skeletons was discerned from the Piedras Negras burials. With 9 of those 10 extended (Table 16), this may have been the preferred position. But 6/9 were in crypts and tombs, graves in which extended skeletons would be expected. Therefore, the extended position may have been preferred but grave type may also have been a factor.

Palenque

Like Piedras Negras, the skeletons whose positions were discerned at Palenque were mostly extended. There were 14/20 (Table 17). This suggests a preference for this position but as again with Piedras Negras, most of the extended bodies, 12/14, were found in crypts and tombs. Grave size, then, may also have been a factor.

Toniná

The skeletons whose positions were observed at Toniná were overwhelmingly extended with 11/12 (Table 18). Despite the small sample, this suggests the extended position was preferred for burial. But as 8/11 extended skeletons were in large crypts, grave size may also have been a factor.

Correlating the total number of flexed and extended skeletons from all sites with grave type provides ambiguous statistics (Table 19). The extended position prevails in each of the relevant grave types. This would be expected for crypts and tombs but not for simple graves and cists if size were a factor in determining position. Therefore, it would seem that grave type and size may have been a factor at times, but position was often a result of site preferences.

Table 19: Total number of flexed and extended skeletons in simple, cist, crypt and tomb

Grave Type Skeletal Position	simple	cist	crypt	tomb
flexed	208	54	35	4
extended	257	91	116	26

There is, of course, the possibility that sampling bias affects the results. In the event that context affected skeletal position a quick correlation of the two was made. But no connection seemed to exist. Either the skeletal position was evenly distributed in respective proportions (flexed to extended) in the different contexts (Tikal, Altun Ha and Altar de Sacrificios), or if there had been a prevailing position, given the range in the number of graves in the different contexts that position prevailed proportionally in each context (Baking Pot, San José, Uaxactún, Dzibilchaltun, Seibal, Copan, Piedras Negras, Palenque and Toniná). At the remaining sites, the sample was either too small (Mountain Cow), or the burials were found in only one, or primarily one, context, i.e. housemounds at Barton Ramie, shrines or temples at Benque Viejo and Holmul, and therefore there was nothing with which to compare.

Correlation with ceramic phase was also conducted to determine if any site preferences were chronological. Only at Altar de Sacrificios and Seibal did there seem to have been any trends: extended during the Bayal phase at Seibal, and flexed during the Late Classic at Altar.

Summary

At 7 sites, Baking Pot, Barton Ramie, Altun Ha, Dzibilchaltun, Piedras Negras, Palenque and Toniná, extended was the prevalent position for burial. Of 4 of these, Dzibilchaltun, Piedras Negras, Palenque and Toniná, this position was found in the larger crypts and tombs as would be expected if grave size and position were correlated. The flexed position prevailed at San José, Uaxactún, Altar de Sacrificios and Copan. Copan excepted, this position was primarily found in cists and simple graves as would be expected so maybe grave size and position were correlated at 3 of these sites. Of the remaining sites, the Mountain Cow and Benque Viejo samples are too

small to be meaningful; the Tikal statistics are, to say the least, ambiguous; and the Seibal and Holmul statistics provide no indication of site preference or correlation between grave size and position. Therefore, the suggestion that skeletal position determined grave type and size, or grave type and size determined position is not well supported, but there may have some connection at some (?) sites (see also chapter 10).

CHAPTER FIVE

HEAD ORIENTATION

Head Orientation

Head orientation of the deceased is the next aspect of disposal to be examined. By head orientation I mean, where discernible, the direction to which the head of the deceased pointed in a grave, or would have pointed had they kept their head! Where possible, the orientation is recorded with one of the cardinal directions of the compass, i.e. north, south, east and west. Of course not every body was orientated precisely on a cardinal direction. Consequently, some orientations are approximate, and simply rounded off to the nearest cardinal point. Thus, all areas between NNE and NNW are rounded off to North, ESE and ENE to East, SSE and SSW to South, and WNW and WSW to West. Where head orientation was between the cardinal points, i.e. NE, NW, SE and SW, the head orientation is noted as such. And because of approximation again, all areas between NNE and ENE are rounded off to NE, NNW and WNW to NW, SSE and ESE to SE, and SSW and WSW to SW. This might appear to lack precision, but this method of approximation does establish general orientation which should suit our purpose. Besides, many excavators simply recorded approximate head orientations in the first instance.

Upon establishing the orientations, three things were sought: 1) to determine whether prevailing orientations occurred within each site; 2) to compare the prevailing site orientations, if there were any, to ascertain regional patterns and associations; and 3) to correlate head orientation with grave context. These were sought because it is believed head orientation is significant, and if so, could be related to religious belief. Therefore, contextual comparison was necessary to find whether residential orientations differed from those in temples and shrines. The following is a summary of the correlations from each site.

Table 20: Head orientation per grave context at Mountain Cow

Grave Context Head Orientation	plaza	household shrine	total
NE	6		6
East	1		1
South		1	1
SW	1		1
total	8	1	9

Table 21: Head orientation per grave context at Baking Pot

Grave Context Head Orientation	house platform	ceremonial platform	plaza	plaza stela	temple altar	temple	total
North					1		1
East		3					3
West		1					1
South	2	9	2			4	17
SE				1			1
total	2	13	2	1	1	4	23

Mountain Cow

At Mountain Cow, 6/9 deceased whose head orientation was noted, were orientated to the NE and in plazas (Table 20). However, 5/6 of these skeletons were secondary interments in one grave (Burial 5). Since secondary interred were probably deposited without much regard to position or orientation, NE may not have been an intended orientation. Moreover, the sample is too small to be significant. The incidence is noted nonetheless.

Baking Pot

This site does reveal a definite prevailing orientation. A total of 17/23 individuals was buried with their heads to the south (Table 21). Adding the one orientated to the SE makes 18 orientated in a southerly direction. Since it is the prevalent orientation in each context, except temple altar (with a sample of only one), then it was probably intentionally done.

Barton Ramie

Like Baking Pot, the head orientation of the interred is also to the south, but even more emphatically. No less than 85/96 skeletons had their heads to the south, 87 including the two orientated to the SW (Table 22). Since all the burials were found in housemounds we can not compare contexts. But it is worth noting that all 5 of the interred whose head orientation was observed during the Jenney Creek and Barton Creek phases had their heads orientated to the north (Table III, Appendix I). It may or may not be significant, but a switch to a southerly orientation began in a big way thereafter.

Table 22: Head orientation per grave context at Barton Ramie

Grave Context Head Orientation	house platform	total
North	5	5
NE	1	1
South	85	85
SW	2	2
faced N	1	1
faced W	1	1
faced S	1	1
total	96	96

Table 23: Head orientation per grave context at San José

Grave Context Head Orientation	temple	ceremonial platform	residence	palace	total
North		1		1	2
NW				1	1
East		1			1
West				1	1
South	1	7	19	23	50
SE				4	4
SW			1		1
total	1	9	20	30	60

Table 24: Head orientation per grave context at Holmul

Grave Context Head Orientation	house platform	household shrine	temple	total
North			1	1
East	1		3	4
West	1		1	2
South	2	3	3	8
SE		1		1
total	4	4	8	16

Benque Viejo

With a sample of only 3 burials and all in the same household shrine, a prevailing head orientation to the south was visible at Benque Viejo. The two individuals whose head orientation was discernible, had their heads pointed in that direction and so corresponds with the pattern appearing at Baking Pot and Barton Ramie (see Table IV, Appendix I). Not a useful sample size, but consistent with its neighbours.

San José

Nearby San José further confirms this apparent regional preference for head orientation to the south. A total of 50/60 individuals was buried with this orientation, and 55/60 including the five orientated to the SE and SW (Table 23). There was no contextual variance as a southerly orientation prevailed in all contexts.

Holmul

The Holmul burials have the same prevailing head orientation to the south, but only just. Only 9/16 were so interred (Table 24), but it is still consistent with the apparent regional pattern.

Uaxactún

Turning to Uaxactún we come to the first site in which the deceased were not primarily orientated to the south. Instead, head orientation to the north prevailed. A total of 45/92 skeletons, whose head orientations were noted, was directed to the north. An additional 10 were orientated in a northerly direction, either NE (3) or NW (7), making a total of 55/92

Table 25: Head orientation per grave context at Uaxactún

Grave Context Head Orientation	house platform	palace	plaza	ceremonial platform	temple	total
North	5	25	6	5	4	45
NE	1	1	1			3
NW	5	1	1			7
East	1	3	1	1	8	14
West	1	9	1	2		13
South	5	1	1		2	9
faced W					1	1
total	18	40	11	8	15	92

Table 26: Head orientation per grave context at Tikal

Grave Context Head Orientation	house platform	elite residence	midden	plaza	ceremonial platform	temple	household shrine	total
North	21			2		3	19	45
East	3	1		1	1	1	1	8
West	2				1		1	4
South	3			1	1			5
SE	1							1
SW			1					1
faced E	1							1
faced S						1		1
total	31	1	1	4	3	5	21	66

(Table 25). But the Uaxactún statistics reveal a contextual anomaly. The northerly orientation prevailed in 4 contexts, housemounds (11/18), plazas (8/11), ceremonial platforms (5/8), and palaces (27/40). But only 4/15 bodies were orientated to the north in temples. Instead, east was the prevailing orientation with 8 individuals. This may be significant.

No orientation was visible for the skeletons located in temple altars or by plaza stelae. This is because the bodies consisted of skulls only, or had been placed between bowls.

Tikal

Tikal, like Uaxactún, demonstrates a prevalence for head orientation to the north with 45/66 individuals so interred (Table 26). Unlike Uaxactún, there does not appear to have been a contextual anomaly. Individuals were not primarily orientated to the north in elite residences, ceremonial platforms, and a midden, but with only 5 skeletons the statistic is meaningless. Orientation to the north prevailed in all other contexts: 21/31 in house platforms, 2/4 in plazas, 3/5 in temples, and 19/21 in household shrines (Table 26).

Altun Ha

The prevalence for head orientation at Altun Ha is unusual. Two, not one, orientations predominate. There were 61 skeletons orientated to the south (76 including the 15 to the SE and SW), and 64 orientated to the east (78 including the 14 to the NE and SE) (Table 27). These are well distributed prevalences. But the interesting point is that there were more individuals orientated in an easterly direction (46) than southerly (36) in residential buildings, and the precise opposite (34 southerly and 23

Table 27: Head orientation per grave context at Altun Ha

Grave Context Head Orientation	residence	palatial residence	ceremonial platform	temple	household shrine	total
North	17	3	2	2	3	27
NE	2			2		4
NW	1		3			4
East	31	9	4	6	14	64
West	7	7	3	1	6	24
South	26	4	1	10	20	61
SE	3	1	5		1	10
SW	2				3	5
faced S			1			1
faced SE			1			1
total	89	24	20	21	47	201

Table 28: Head orientation per grave context at Dzibilchaltun

Grave Context Head Orientation	household shrine	palace	vaulted residence	residence	ceremonial platform	total
North		1	3	1		5
NE	2					2
East	4	1	19	4	1	29
West			4	1	1	6
South	1	2	2			5
SE				2		2
total	7	4	28	8	2	49

Table 29: Head orientation per grave context at Altar de Sacrificios

Grave Context Head Orientation	house platform	palace	plaza	ceremonial platform	temple	total
North	12	3	1	4	1	21
NE	1		1	1	1	4
NW	3					3
East	8	14		16	2	40
West	6	4		2	2	14
South	7	3		3	3	16
SE	3			1		4
SW	2	1			2	5
faced N	1					1
faced NW		2				2
faced E					1	1
total	43	27	2	27	12	111

Table 30: Head orientation per grave context at Seibal

Grave Context Head Orientation	midden	house platform	palace	plaza	ceremonial platform	household shrine	total
North		6	1	1	2	2	12
NE	1						1
East		10		4	1	6	21
West		1		1	1	2	5
South		3					3
total	1	20	1	6	4	10	42

easterly) in temples and household shrines (Table 27). Thus, the two prevailing orientations seem related to two different contexts: easterly in residences and southerly in temples and household shrines.

Dzibilchaltun

Of those individuals whose head orientation was discerned, 29/49 had their heads orientated to the east and 33/49 in an easterly direction (Table 28). With this proportion it is the prevailing orientation. Only in palaces did this orientation not predominate, but with only 4 individuals the sample is too small to be meaningful.

Altar de Sacrificios

Head orientation to the east also prevails at Altar de Sacrificios, though only 40/114 skeletons were so orientated, and 48 in an easterly direction (Table 29). This is only 35% and 42%, respectively. This limited prevalence is accounted for by the evenly distributed head orientation of deceased in house platforms and temples. Only in palaces and ceremonial platforms did the majority of heads have an easterly orientation, 14/27 and 18/27, respectively (Table 29).

Seibal

Like Altar de Sacrificios, head orientation to the east only just prevails with 21/42 individuals so placed (Table 30). This may be increased to 23 if one includes the skeleton in the midden who was orientated to the NE and the person in Burial 18 who was recorded with head to the north in original notes - and here - but head to the east in the original site illu-

Table 31: Head orientation per grave context at Copan

Grave Context Head Orientation	house platform	plaza	unknown	total
North	2		2	4
NE	1	1	1	3
East	5	1	8	14
West	1	3	2	6
South		3	2	5
SE	1			1
SW	2			2
faced NW			1	1
faced E		1		1
total	12	9	16	37

Table 32: Head orientation per grave context at Piedras Negras

Grave Context Head Orientation	cave	ball court	ceremonial platform	temple	palace acropolis	vaulted residence	total
North					1		1
NE						3	3
NW		1		1		1	3
East	1						1
South					1		1
SW			1				1
total	1	1	1	1	2	4	10

stration (for explanation see Tourtellot (in press)). Only in ceremonial platforms did this orientation not prevail.

Copan

As with the previous three sites, head orientation to the east prevails at Copan but again only just. A total of 14/37 was orientated in this direction and 18/37 in an easterly direction (Table 31). This is not very prevalent and partly accountable by the fact that only 2/8 skeletons in plazas were orientated in an easterly direction. Orientation to the west and south equally prevailed in this context.

Piedras Negras

Head orientation to the north prevailed at Piedras Negras. Of the only 10 bodies, 7 were orientated in a northerly direction but only one was actually orientated due north (Table 32).

Palenque

The 20 skeletons whose orientations were ascertained at Palenque were overwhelmingly directed towards the north with 17/20 individuals, and 18/20 in a northerly direction (Table 33). This is not a large sample but it is a very pervasive trend.

Toniná

The same orientation persists at Toniná. Only 12 individuals had a discernible orientation, but 9 of these were directed with heads to the

Table 33: Head orientation per
grave context at Palenque

Grave Context Head Orientation	temple	plaza	unknown	total
North	6	2	10	18
NE	1			1
South	1			1
total	8	2	10	20

Table 34: Head orientation per
grave context at Toniná

Grave Context Head Orientation	residence	plaza	temple	total
North	6	1	2	9
East	1			1
South	1			1
faced S			1	1
total	8	1	3	12

north (Table 34). A northerly orientation seems to prevail in this region.

Summary

This exercise reveals that site prevalences exist for the head orientation of deceased at every site (the reasons for which are discussed below, chapter 13). Head to the south prevails at the sites of Baking Pot, Barton Ramie, Benque Viejo, San José and Holmul; head to the north at Piedras Negras, Palenque, Toniná, Uaxactún and Tikal; head to the east at Copan, Dzibilchaltun, Seibal and Altar de Sacrificios; head to the south and east at Altun Ha; and head orientation to the NE appears to predominate at Mountain Cow but because 5/6 skeletons with such an orientation were secondary interments the orientation was probably unintentional. At a number of these sites the prevailing orientation was just below or barely 50%, e.g. Copan, Seibal, Altar de Sacrificios and Holmul, or the sample at the site was too small to be meaningful on its own, e.g. Benque Viejo and Piedras Negras. However, in each case the prevailing orientation was similar to its neighbours, thus producing an interesting regional pattern. These were not just site prevalences, but regional as well (see Fig. 3).

It is also revealed that 3 sites have different prevailing orientations for different contexts. At Uaxactún, orientation to the east was prevalent in temple contexts and head to the north in residential burials. At Altun Ha, head to the south prevails in household shrines and temples and head to the east in residences. And at Copan, head orientation to the east was prevalent in the presumed housemound contexts but with head to the west and south prevailing in the few plaza graves. These prevailing orientations may be a result of desired orientations for different contexts, possibly related to some religious belief. On the other hand the apparent contextual

prevalences may simply result from site excavation bias. I have no data to positively substantiate either possibility (but see chapter 13). The statistical anomalies must simply be pointed out.

CHAPTER SIX

URN AND POT-SKULL ASSOCIATED BURIALS

Urn and Pot-Skull Associated Burials

Urn burials, and less so, bowl over skull burials, have been considered by many as virtual grave or burial types. This, as I previously suggested (p. 49), is not really correct. Urn and bowl over skull burials should really be considered as modes of disposing of the dead. Indeed, there are several different associations between skulls and bodies, and bowls (dishes) and urns, so different that they are different modes.

The first association is that of bowls placed over or under a skull (Table 35). This association is distinct by the fact that only the skull of a body is covered or supported by a dish. The interment is not secondary. A bowl over or a bowl under mode could be distinguished but the act and intent may well have been the same (see below). Urn burials (Table 36) are distinct by the fact that the entire body is placed in a container, usually covered. The interment is secondary. But this association too seems to be of 2 types: bodies in urns or dishes, and bodies placed between bowls. They are grouped together because the act of placing a body between bowls or in a covered urn is more or less the same. The intent, however, may or may not be (see below). The third association consists of burials in which a bowl contains or covers a severed skull (Table 37). Since these are only severed skulls in bowls, the presence of which clearly implies sacrifice, this is considered distinct. Finally, I have included another mode of burial here that has no association with pottery at all, but with shells (Table 38). It is included because it is also a mode of disposal associated with placing an object over a skull, regardless of the difference in the material of the object and probably the intent (see below).

The bowl over or under skull mode seems to have been the most common of the 4 practices. There were a total of 114 burials from 10 sites with this mode present (Table 39). The fact that these were found in all contexts (79 in residences and 35 in temples, household shrines, ceremonial

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Barton Ramie	124-2	bowl over skull	simple	housemound
	123-20	bowl over skull	simple	housemound
	1-6	bowl over skull	simple	housemound
	147-2	bowl over child; accompanied by 2 adults	simple	housemound
	1-1	2 bowls over skull	simple	housemound
San José	B6	bowl over skull	simple	palace
	B21	dish over skull	simple	palace
	B28	bowl over skull	simple	residence
	B30	dish over skull	simple	residence
	D7	bowl over skull	simple	ceremonial platform
	D3	dish over skull	simple	ceremonial platform
	A4	bowl over skull	simple	residence
	B7	bowl over skull	simple	palace
Holmul	B13	bowl lid over skull	simple	temple
	B5	skull in dish	simple	temple

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Holmul	B6	skull in bowl	simple	temple
Uaxactún	A56	jar over skull	simple	house platform
	A50	bowl over skull	cist	house platform
	A53	dish over skull	simple	house platform
	E6	metate over skull	cist	temple
	HM3	skull in dish	cist	house platform
	A64	bowl over skull	simple	palace
	A46	bowl over skull	simple	palace
	A47	bowl over skull	cist	palace
	A51	bowl over skull	simple	palace
Tikal	158	bowl over skull	cist	house platform
	130	skull on plate	simple	house platform
	58	bowl over skull	simple	household shrine
	132	skull on bowl lid	crypt	household shrine
	150	bowl beneath skull	crypt	household shrine

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Tikal	45	bowl beneath skull	cist	house platform
	49	bowl beneath skull	cist	household shrine
	50	bowl over skull	simple	household shrine
	68	bowl under skull	cist	house platform
	70	bowl under skull	cist	household shrine
	189	plate under skull	crypt	house platform
	192	bowl under skull	cist	elite residence
	77	plate over skull	tomb	temple
Altun Ha	C-13/33	sherds of 2 or more bowls over skull	simple	ceremonial platform
	C-13/24	bowl over skull; accompanied by 2 others	simple	ceremonial platform
	C-13/17	dish over skull; accompanied by primary interred	simple	ceremonial platform
	C-16/3	bowl over skull	simple	residence
	E-7/22	jar over body	cist	household shrine
Dzibilchaltun	450-1	bowl in place of skull; accompanied by 2 other interred	simple	ceremonial platform

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Dzibilchaltun	6969-1	dish under skull; accompanied by 4 other interred	tomb	household shrine
	38-9	plate over skull	crypt	household shrine
	385-2	plate over faceless skull	crypt	vaulted residence
	385-3	plate over faceless skull	crypt	vaulted residence
	385-6	bowl over skull	simple	vaulted residence
	385-8	plate over skull	crypt	vaulted residence
	3536-1	bowl over skull	crypt	residence
	3110-1	dish over skull	crypt	vaulted residence
	386-3	plate over skull	crypt	vaulted residence
	57-4	bowl over skull	crypt	vaulted residence
	57-5	plate over skull; accompanied by severed skull	crypt	vaulted residence
	57-6	dish over skull; accompanied by secondary infant	crypt	vaulted residence
	96-3	dish over skull; accompanied by another interred	crypt	vaulted residence

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Dzibilchaltun	96-5	jar over skull	crypt	vaulted residence
	55-1	dish over skull; accompanied by 2 other interred	simple	palace
Altar de Sacrificios	124	jar over skull	simple	temple
	125	jar over body	simple	temple
	127	3 separate bowls over 3 different skulls	simple	temple
	129	bowl over skull	simple	temple
	41	bowl over skull	simple	house platform
	104	bowl over skull	simple	house platform
	107	bowl over skull	simple	house platform
	119	skull in vase	cist	temple
	113	killed bowl over skull	simple	house platform
	134	bowl over skull	simple	house platform
	12	bowl over, and olla under, skull	simple	house platform
	118	bowl over skull	simple	house platform

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Altar de Sacrificios	7	bowl over skull	simple	house platform
	106	bowl over skull	simple	house platform
	115	killed bowl over skull	simple	house platform
	42	bowl over skull	cist	plaza
	51	bowl over skull	simple	palace
	98	killed bowl over skull	simple	ceremonial platform
	100	plate over body	simple	palace
	112	killed bowl over skull	simple	house platform
	114	plate over skull	simple	house platform
	122	bowl over skull	simple	house platform
	27	plate over skull	simple	house platform
	25	plate over skull	cist	house platform
	29	plate over skull	simple	house platform
	1	plate over skull; accompanied by a child	simple	house platform
	47	bowl over skull	simple	palace

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Altar de Sacrificios	96	plate over skull	cist	ceremonial platform
	128	killed bowl over skull	crypt	ceremonial platform
	30	killed plate over skull	simple	house platform
	121	bowl over skull	simple	ceremonial platform
	5	bowl over body	simple	ceremonial platform
	36	plate over skull; accompanied by a child	simple	palace
	58	plate over skull	simple	palace
	79	bowl over skull	cist	house platform
	126	killed dish over skull	simple	ceremonial platform
	15	bowl over skull	simple	house platform
	21	bowl on skull	simple	house platform
	50	bowl over skull	simple	palace
	52	bowl under skull	simple	palace
	61	bowl over skull	simple	palace
	62	large sherd over skull	simple	palace

Table 35: The burials with a bowl or metate, over or under, a skull

Site	Burial	Mode	Grave Type	Grave Context
Altar de Sacrificios	69	bowl over skull	simple	ceremonial platform
	82	bowl over skull	simple	palace
	92	killed bowl over skull	simple	ceremonial platform
	16	plate over skull	simple	house platform
Seibal	42	dish over skull	simple	house platform
	22	killed dish over skull	simple	house platform
	30	dish over skull	simple	house platform
	6	dish over skull	simple	house platform
	19	dish over skull	simple	palace
	24	bowl under skull	cist	house platform
	1	plate, dish & bowl over skull	cist	palace
	38	dish over skull	cist	house platform
	9-46	bowl over skull	simple	plaza
Copan				

platforms and plazas) suggests it was practised to some degree by, and for, all Maya citizens. More important, because 77/114 were in simple graves suggests that the practice was done primarily for the protection of the skull. This may especially have been the case with the faceless interred of Burials 385-2 and 385-3, Dzibilchaltun. Though 12/15 bowl over skull burials at Dzibilchaltun were in crypts, protection is still implied. Since 75/116 graves at the site were crypts, some association with this grave type would be expected. The one instance of a metate over a skull, Burial E6, Uaxactún, probably served the same purpose. At Tikal, however, bowl under skull, not over, was the favoured mode (9/13) and 8 of these were not in simple graves. The purpose was more support for the head rather than protection of the skull. The use of bowls with kill holes was confined to Altar de Sacrificios and Seibal (8 & 1 instances, respectively). I would suggest that the bowls were holed to indicate that the bowls, like the deceased, were dead. Perhaps each bowl had been the deceased's favourite. Finally, there was the unique instance of a bowl having been substituted for a skull, i.e. Burial 450-1, Dzibilchaltun. Obviously protection of the skull could not have been the purpose if there was no skull to protect. Instead, the intent may have had something to do with the veneration of the dead (see chapter 12 below).

There were 33 instances of the urn mode of burial from 8 sites (Table 39) making this the second most common of the 4 modes. It was most common at Dzibilchaltun with 12/33 examples (Table 36). As with the bowl over skull burials, most were in simple graves (27/33). Of the six that were not, 3 were multiple burials, i.e. Burials 167, Tikal, E-7/30, Altun Ha, and 14-1, Dzibilchaltun, 2 were very well furnished, i.e. Burials 128 and 85, Tikal, and the last was a child placed between 2 bowls, Burial A66, Uaxactún. These 6 burials demonstrate the possible diversity in the purpose of this mode. The placing of the interred in vessels in the 2 well

Table 36: Urn burials

Site	Burial	Mode	Grave Type	Grave Context
Barton Ramie	124-1	infant in urn	simple	housemound
San José	D2	body in urn	simple	ceremonial platform
Uaxactún	E10	infant between inverted bowls	simple	Stela 19, plaza
	A73	infant in olla	simple	housemound
	E1	infant between inverted dishes	simple	temple altar
	E21	old adult between inverted dishes	simple	temple altar
	A66	infant between 2 bowls	crypt	temple
Tikal	122	infant between 2 plates	simple	ceremonial platform
	123	adult between 2 plates	simple	ceremonial platform
	126	adult between 2 plates	simple	ceremonial platform
	167	adult & infant between 2 separate set of bowls; accompanied by primary interred	tomb	temple
	128	adult in urn	crypt	household shrine
	85	seated in vessel	tomb	temple
Altun Ha	C-18/11	infant in plate	simple	residence

Table 36: Urn burials

Site	Burial	Mode	Grave Type	Grave Context
Altun Ha	A-8/7	adult in urn	simple	temple
	C-18/6	infant in dish	simple	residence
	E-7/30	child in bowl; accompanied by 2 other interred	cist	household shrine
	E-7/25	infant in covered jar	simple	household shrine
	E-21/2	infant in urn	simple	residence
Dzibilchaltun	605-8	child in urn	simple	residence
	605-11	child in urn	simple	residence
	226-4	child in urn	simple	residence
	14-1	child in urn; accompanied by primary interred	crypt	vaulted residence
	38-sub.7	child in urn	simple	household shrine
	38-sub.8	2 children in urn	simple	household shrine
	384-2	child in urn	simple	vaulted residence
	385-4	infant in urn	simple	vaulted residence
	385-5	infant in urn	simple	vaulted residence

Table 36: Urn burials

Site	Burial	Mode	Grave Type	Grave Context
Dzibilchaltun	385-9	child in covered jar	simple	vaulted residence
	386-4	body (fragments) in urn	simple	vaulted residence
	386-5	body (fragments) in urn	simple	vaulted residence
Altar de Sacrificios	101	infant in urn	simple	plaza
Piedras Negras	16	infant between 2 bowls	simple	temple

furnished Tikal burials may just indicate veneration of the deceased. The multiple burials consist of secondary interred who were sacrificed in honour of the primary interments. Sacrifice may also apply to every burial in which the bodies were placed between bowls, i.e. Burials E10, E1, E21 and A66, Uaxactún, 122, 123 & 126, Tikal, and 16, Piedras Negras. In each case these burials resemble caches, offerings to structures that consist of valuable items placed between or in bowls. The burials seem the same but include human victims. Moreover, the burials were found in front of stelae or altars, or in a temple or ceremonial platform, structures which typically had caches. Therefore, I believe these 8 burials were dedicatory cache burials and imply an act of sacrifice (see chapter 11).

As for the remaining urn burials, I am not absolutely certain of their purpose. It is very conceivable that they should also be considered as cache burials. Burials 38-sub.7 & 38-sub.8, Dzibilchaltun, and 101, Altar de Sacrificios probably were, and possibly Burials 124-1, Barton Ramie, and C-18/11 & C-18/6, Altun Ha (see Table 103). But many are not in structures that normally had cache burials, i.e. residences. Caches are normally placed as dedications to ceremonial platforms, temples, stelae and temple altars, but they have been found in palaces, Str. B4, C4 & C5, San José (Thompson 1939: 184-192), residences, Str. F4-6 & F4-3, Toniná (Becquelin and Baudéz 1979: Table 2), and housemounds, Str. BR-123, Barton Ramie (Willey et al. 1965: 125 & 552) and Mounds 38, 2, 7, 36, 15 & 24, Altar de Sacrificios (Smith 1972: Table 4). So though every type of structure might receive a dedicatory cache at the commencement of construction or perhaps after some cyclic ritual, I should have thought a human dedication is that much more special and more likely to be reserved for buildings of the most social and religious importance. This is implied by the next association with 11/11 severed skull in bowl burials in or by ceremonial structures (Table 37). Even though I include the residential burials, 124-1, Barton

Table 37: Burials of severed skulls in, between or under, bowls

Site	Burial	Mode	Grave Type	Grave Context
Baking Pot	B7	skull & legs in urn	simple	temple
San José	A5	bowl over 2 severed skulls	simple	temple
	A6	bowl over severed skull	simple	temple
	A8	severed skull in 2 bowls & covered by another	simple	temple
Uaxactún	E22	severed skull between inverted dishes	simple	temple altar
	E23	severed skull between inverted dishes	simple	temple altar
	A27	2 bowls over severed skull	simple	Stela A7
Tikal	166	severed skull in bowl; accompanied by primary interred	tomb	temple
Dzibilchaltun	6969-1	1 bowl over each of 2 severed skulls at base of tomb stairs; accompanied by 3 other interred	tomb	household shrine
	500-4	severed skull in covered dish	simple	ceremonial platform
Piedras Negras	10	bowl over severed skull	tomb	plaza

Table 38: Burials with shell (conch) over skull, face or mouth

Site	Burial	Mode	Grave Type	Grave Context
San José	A7	bivalve over skull	simple	ceremonial platform
Uaxactún	A6	shell over face	crypt	ceremonial platform
Tikal	160	shell over skull of primary interred; accompanied by 2 others	tomb	household shrine
	196	shell over skull	tomb	ceremonial platform
Altun Ha	A-1/2	shell over skull	cist	temple
	TB-4/2	shell over skull	crypt	temple
Altar de Sacrificios	99	shell over mouth	simple	temple
	128	shell over mouth	crypt	ceremonial platform

Table 39: Distribution of the various bowl and shell mode burials

Site	number with bowl over or under skull	number with urns	number with severed skulls in bowls	number with shell over skull
Baking Pot			1	
Barton Ramie	5	1		
San José	8	1	3	1
Holmul	3			
Uaxactún	9	5	3	1
Tikal	13 (9 under)	6	1	2
Altun Ha	5	6		2
Dzibilchaltun	16	12	2	
Altar de Sacrificios	46 (8 killed bowls)	1		2
Seibal	8 (1 killed bowl)			
Copan	1			
Piedras Negras		1	1	
TOTAL	114	33	11	8

Ramie, and C-18/11 & C-18/6, Altun Ha, as dedicatory cache burials, they are definitely not typical (Table 103). That all urn burials should be considered dedicatory cache burials is compelling, but I am not absolutely convinced.

The third association, severed skulls in, between or under, bowls (Table 37), is very clearly associated with sacrifice, either as dedications to structures or, in the case of multiple interments, to the primary interred. Sacrifice is emphasized by the very presence of severed skulls. Dedication is implied by the resemblance to caches - between bowls - and by the fact that 11/11 burials were in or by structures of enough religious importance to require sacrificial dedication, i.e. stelae, temple altars, temples, ceremonial platforms and household shrines.

The final association, shell over skull (Table 38), was probably practised for a completely different purpose. All 8 of the shell mode burials were well furnished and located in important buildings, but they did not resemble caches. The buried individuals must have been important and not simply the buildings. This is indicated by the fact that two of the burials were of Tikal rulers, Son of Kan Boar in Burial 160 and Yax Kin in Burial 196 (Table 99). Perhaps the shell was placed over the skull as a mark of respect. But a look at the ethnohistoric literature reveals there may have been more to it. Landa reports that a conch shell was used to call the gods in some rites (Tozzer 1941: 144). Perhaps in this more ancient and different association with the dead, the conch was placed to permit a continued dialogue between the gods and an important member of the religious community. Whatever the reason, the intent seems rather unrelated to the purposes of protection of the skull of the bowl over skull mode, or the dedicatory and sacrificial nature of the body in urn and severed skull in urn burials.

CHAPTER SEVEN

SKELETAL MUTILATION

Skeletal Mutilation

Skeletal mutilation is the last aspect of skeletal information to be examined. Several forms exist (Table 40): decapitation, removal of hands and feet, removal of hands and skull, removal of femurs, removal of facial bones, intentionally smashed, drilled or holed skulls and longbones, and in one bizarre instance, the cutting and flipping around of the pelvis of an old adult female in Burial E-14/1, Altun Ha. She lay prone, the pelvis lay supine. In any case, every burial for which there is suggested evidence of mutilation in our sample is recorded in Table 40.

It is suspected that many of the mutilated individuals had been sacrificed and that the mutilation was either the cause of death or had followed immediately after. This especially applies to the severed skull, mandible only and decapitated individuals (see chapter 11). Furthermore, instances in which legs were defleshed, i.e. Burials 385-1 & 385-2, Dzibilchaltun, might reveal the practice of cannibalism (see chapter 12). But many other mutilated skeletons are probably not the result of sacrifice. At least 10 burials, i.e. A36, Uaxactún, A-1/2, C-16/17, C-6/3, C-22/2 & C-22/5, Altun Ha, 226-2 & 226-3, Dzibilchaltun, 44, Seibal, and 9-46, Copan, were badly disturbed and/or poorly preserved. The missing body parts in these examples are more probably the result of disturbance or disintegration and not intentional mutilation. Indeed, an additional 4 burials at Altar de Sacrificios, Burials 18, 32, 91 & 33, consisted of legs and pelvis only in each, and another two had no pelvis or legs, Burials 76 & 80, but the missing upper or lower bodies were so clearly a result of poor preservation that they have not even been listed in the Table. A further 11 instances of facial removal and/or decapitation may not be the result of sacrifice either, but the result of mutilation after death for a rather different purpose: ancestor worship (see Table 111, chapter 12). Other instances in which only a portion of a leg or the feet are removed, i.e. Burials 260-3,

Barton Ramie, and C-16/21, Altun Ha, are not, I should think, sacrifices, though I do not know what other purpose such mutilation might have. Nor have I any notion why the pelvis of the adult female in Burial E-14/1, Altun Ha was cut and flipped round. I would confidently suggest, however, that the remainder of the mutilations tabulated were sacrifices, the reasons for which are discussed in detail below (see chapter 11). But I should like the answer to one question: do any of the severed skulls or mandibles belong to any of the headless bodies?

Tables 41, 42, and 43 reveal three additional points. Firstly, although adults and adult males suffered the major proportion of mutilations, 47 and 37, respectively, it is not exclusive to any one sex or age group. Secondly, the majority of mutilated skeletons (46/74) were buried in areas of public display or ceremonial importance, i.e. ceremonial platforms, temples, plazas and household shrines. Such locations of mutilated interments may be indicative of sacrifice. Only at Dzibilchaltun were many mutilated skeletons found in residences (14/18). But this statistic is probably affected by the high incidence of residential burials in the site sample, 98/116, and so the prevalence of mutilations in residences at Dzibilchaltun may be more apparent than real. Their existence is nonetheless of interest. And thirdly, the majority of mutilated skeletons (44/74) had been placed in simple graves. This may suggest that grave preparation was not important for some, and in these instances, be indicative of sacrifice.

Table 40: Burials consisting of skeletons with evidence of mutilation

Site	Burial	Condition or Nature of Mutilation	Grave Type	Grave Context
Mountain Cow	8	6 mandibles only	crypt	household shrine
	16	4 mandibles only	simple	household shrine
Baking Pot	R4	headless	simple	ceremonial platform
	R5	headless	simple	ceremonial platform
	B7	skull & leg bones only	simple	temple
Barton Ramie	260-3	left leg removed	simple	housemound
San José	A5	2 severed skulls of adult & child	simple	temple
	A6	severed skull	simple	temple
	A8	severed skull	simple	temple
Uaxactún	E12	decapitated adult; femurs removed, occiput at knees and face missing	simple	plaza
	E15	adult female with crushed skull; accompanied by child	simple	plaza
	E2	decapitated	crypt	temple
	E22	severed skull of child	simple	temple altar
	E23	severed skull of youth	simple	temple altar

Table 40: Burials consisting of skeletons with evidence of mutilation

Site	Burial	Condition or Nature of Mutilation	Grave Type	Grave Context
Uaxactún	A5	scattered adult	simple	ceremonial platform
	A27	severed skull of adult	simple	Stela A7
	C1	face removed	crypt	temple
	A20	face removed	crypt	temple
	A10	severed skull	simple	ceremonial platform
	A36	skull & mandible of child; poorly preserved	cist	palace
	A18	severed skull	simple	plaza
Tikal	166	severed skull of adult female; accompanied by primary interred	tomb	temple
	85	skull & femurs removed	tomb	temple
	48	skull & hands removed; accompanied by 2 other interred	tomb	temple
Altun Ha	C-13/7	skull & lower legs removed	cist	ceremonial platform
	C-13/19	severed skull of adult accompanying primary youth	simple	ceremonial platform
	C-13/16	scattered adult	simple	ceremonial platform

Table 40: Burials consisting of skeletons with evidence of mutilation

Site	Burial	Condition or Nature of Mutilation	Grave Type	Grave Context
Altun Ha	C-13/34	severed skull	simple	plaza
	C-13/35	calvarium only	simple	ceremonial platform
	A-1/2	feet & lower legs missing	cist	temple
	C-16/22	calvarium removed	simple	residence
	C-16/17	teeth and cranial bones only of 2 individuals accompanying primary interment; disturbed	crypt	residence
	C-16/21	no feet	cist	residence
	E-14/5	skull fragments only	cist	palatial residence
	C-6/3	child skull; poorly preserved	simple	household shrine
	E-14/1	pelvis cut and flipped round	crypt	palatial residence
	C-22/2	skull missing; disturbed	simple	residence
	C-22/5	skull missing; fragmentary	simple	residence
Dzibilchaltun	605-6	2 adult males with skull & bones intentionally broken	simple	residence
	605-3	no skull	simple	residence
	450-1	2 headless adults accompanied by child	simple	ceremonial platform

Table 40: Burials consisting of skeletons with evidence of mutilation

Site	Burial	Condition or Nature of Mutilation	Grave Type	Grave Context
Dzibilchaltun	500-4	severed skull & dismembered	simple	ceremonial platform
	226-2	hands & feet missing; poor preservation	simple	residence
	226-5	long bones broken	chultun	residence
	605-2	skull crushed	simple	residence
	226-3	no skull; poorly preserved	simple	residence
	6969-1	2 severed skulls accompanying 3 primary interred	tomb	household shrine
	38-sub.2	skull of adult male accompanying 3 children	crypt	household shrine
	385-1	adult's face missing & legs defleshed; accompanied by child	crypt	vaulted residence
	385-2	face missing & legs defleshed	crypt	vaulted residence
	385-3	face missing	crypt	vaulted residence
	1005-2	adult with drilled femurs accompanying 3 other interred	crypt	vaulted residence
	6965-2	holes in longbones	crypt	residence
	57-5	skull of female accompanying faceless female	crypt	vaulted residence

Table 40: Burials consisting of skeletons with evidence of mutilation

Site	Burial	Condition or Nature of Mutilation	Grave Type	Grave Context
Dzibilchaltun	95-2	decapitated adult & another with only a femur accompanying 2 primary interred	crypt	vaulted residence
	95-1	lower legs only of 2 adults	cist	residence
Altar de Sacrificios	108	headless; poor preservation?	simple	temple
	56	mandible only	simple	palace
	120	severed skull	simple	ceremonial platform
	79	head and hands missing	cist	housemound
	89	headless	cist	ceremonial platform
	66	headless	simple	palace
	20	severed skull	simple	housemound
	92	femurs broken	simple	ceremonial platform
	49	severed skull	simple	ceremonial platform
	85	severed skull	simple	ceremonial platform
Seibal	29	dismembered	simple	midden
	44	skull only; badly disturbed	simple	household shrine

Table 40: Burials consisting of skeletons with evidence of mutilation

Site	Burial	Condition or Nature of Mutilation	Grave Type	Grave Context
Seibal	4	10 severed skulls accompanying 2 other adult males	simple	ceremonial platform
Copan	7-46	lower legs removed	simple	plaza
	9-46	skull fragments of child; poorly preserved	simple	plaza
	T6	severed skull of adult accompanying 2 other adults	crypt	plaza
Piedras Negras	10	cut skull & mandible	tomb	plaza
Toniná	IV-1B,C	9 mandibles	tomb	plaza

Table 41: Age & sex of the mutilated skeletons

old adult	adult or mature adult	young adult	youth	child/infant	adult female	adult male
9	47	20	3	7	18	37

Table 42: The context of the mutilated interments

palace, house- mound or residence	midden	plaza	household shrine	stela or altar	temple	ceremonial platform
27	1	9	6	3	12	16

Table 43: The number of mutilated interments per grave type

simple	cist	crypt	tomb	chultun
44	8	15	6	1

CHAPTER EIGHT

GRAVE TYPE AND GRAVE CONTEXT

Grave Type and Grave Context

We now depart from methods of disposal of the dead to an examination of the actual graves and their relation to grave contexts. Grave type is correlated with grave context at each site to determine whether there was a general inclination to construct or have a specific type of grave in a specific type of structure.

Mountain Cow

The small sample restricts what may be learned from the correlation at Mountain Cow. Perhaps the one interesting point is the apparent prevalence of crypts and tombs in household shrines (6/9)(Table 44).

Baking Pot

With the exception of the graves in the temple altar and plaza stela, simple graves prevail in every context (Table 45). Since 21/27 graves found at the site were simple, this is hardly surprising. The existence of a cist and crypt as graves of the plaza stela (Burial B2) and temple altar (Burial B3) may be consistent with the fact that these were dedicatory cache burials that, in the absence of burial in bowls, required box like, stone constructions (see chapter 6 and chapter 11 for the rationale behind dedicatory cache burials).

Barton Ramie, Benque Viejo and San José

Correlation of grave type and grave context is virtually impossible at these 3 sites. The Barton Ramie burials were all in one context (house-mounds) and overwhelmingly of 1 grave type, simple (104/114). The Benque

Table 44: Grave type per grave context at Mountain Cow

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
house platform	1			1			2
plaza		4		3			7
household shrine	2		1	3	3		9
total	3	4	1	7	3		18

Table 45: Grave type per grave context at Baking Pot

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
house platform	3						3
plaza	2						2
plaza stela			1				1
temple altar				1			1
temple	4		1				5
ceremonial platform	12		1	1		1	15
total	21		3	2		1	27

Table 46: Grave type per grave context at Holmul

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
residence	4						4
household shrine				4			4
temple	9		2	3			14
total	13		2	7			22

Table 47: Grave type per grave context at Uaxactún

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
house platform	8	1	11	1			21
palace	16		18	13			47
plaza	16						16
plaza stela	2						2
temple altar	5						5
temple	2	2	2	6	4		16
ceremonial platform	3			6			9
total	52	3	31	26	4		116

Viejo sample consisted of only 3 burials, all in household shrines. And the San José burials, though found in 4 different contexts, 68/70 graves were simple. With little or no comparative grave types or grave contexts, correlation would be pointless. There is, however, the possibility that the prevalence of simple burials at Barton Ramie and San José may be on account of burials being predominantly found in residential contexts at both sites, 114/114 and 55/70, respectively. (The 55 residential burials at San José include those in the palaces.)

Holmul

The predominance of simple graves apparently persists at Holmul (13/22), and in two of the three contexts in which burials were found (Table 46). What may be significant, though, is that all nine of the non-simple graves were constructed in the temple and household shrines, perhaps indicating a connection for more sophisticated grave construction in these contexts.

Uaxactún

This is one site that consists of a large and varied enough sample of grave types in several different contexts with which to make useful observations and comparisons. Table 47 reveals an interesting pattern. The simpler grave constructions, cists and simple graves, prevailed in house platforms (19/21) and palaces (34/47), and all of the plaza, plaza stela and temple altar graves were simple (23/23). On the other hand, the more sophisticated constructions of crypts and tombs prevailed in temples (10/16), including the only 4 tombs at the site, and ceremonial platforms (6/9). This suggests that particular grave constructions were preferred

Table 48: Grave type per grave context at Tikal

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
housemound	15	2	13	1		1	32
elite residence			1			2	3
palace						1	1
midden	2					1	3
plaza	3	2					5
ceremonial platform	4		1		2		7
temple	1		1		12	1	15
household shrine	12		5	7	2	15	41
total	37	4	21	8	16	21	107

Table 49: Grave type per grave context at Altun Ha

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
residence	74		29	10		3	116
palatial residence	7		8	10			25
plaza	1						1
ceremonial platform	32		3				35
temple	7		7	7	4		25
household shrine	18		14	15		6	53
total	139		61	42	4	9	255

for specific contexts. The simpler grave types may have been selected in residences because that is all a family could afford to construct for the deceased (housemounds), or felt obliged to provide and for which they could pay (palaces). The plaza, plaza stela and temple altar graves were simple because most (all?) of these burials were either sacrificial or dedicatory in nature (see chapter 11): it was the placing of the grave, not grave construction, that was important. Though the graves of the two similar dedicatory cache burials at Baking Pot consisted of a cist and crypt, in neither one was the interred placed between bowls as they had been in 6/7 Uaxactún stela and altar burials. In the absence of bowls as containers of the deceased, small, box type, stone constructions were necessary.

Crypts and tombs were probably preferred for temples and ceremonial platforms because important members of the community were buried in these buildings and the cost of grave construction was no object. Grave location almost certainly was.

Tikal

The distribution of graves at Tikal seems to follow a similar pattern to that of Uaxactún, despite the presence of a large number of unclassified graves (Table 48). Of the 36 residential graves (housemounds, elite residences and palaces), 29 are simple or cist, and only one is of a sophisticated construction (crypt). The plaza graves are also of a simple nature, i.e. simple or chultun, as are 2 (and probably 3) of the midden graves. The ceremonial platform graves are primarily simple (4/7) but 3 of these burials, Burials 122, 123 & 126, were certainly sacrifices (chapter 11) and in bowls, therefore accounting for the simple constructions. For temples and household shrines, crypts and tombs only just predominate of the classified graves (21/40). However, 21/24 crypts and tombs at the site

Table 50: Grave type per grave context at Dzibilchaltun

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
residence	17	1		22			40
vaulted residence	9		3	44			56
palace	2						2
ceremonial platform	3			1			4
household shrine	3		1	8	1		13
temple	1						1
total	35	1	4	75	1		116

Table 51: Grave type per grave context at Altar de Sacrificios

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
housemound	50		3				53
palace	36			1			37
plaza	3		1				4
ceremonial platform	27		3	1			31
temple	9		1	1			11
total	125		8	3			136

existed in these buildings and so still affirms an association between sophisticated graves, and temples and household shrines.

Altun Ha

For Altun Ha an association only seems to exist between simpler graves and residences, and simple graves and ceremonial platforms. Of the 141 residential graves, 118 were simple or cist (Table 49). Of the 35 ceremonial platform graves, 32 were simple. This continues the association seen at Uaxactún and Tikal, and probably for the same reasons (at least 9 of the ceremonial platform burials were sacrificial; see Table 104, chapter 11).

No association seems to exist between crypts and tombs with temples and household shrines. Although all 4 of the site's tombs were located in temples, simple graves, cists and crypts were evenly distributed. There were 25, 21 & 22 such graves, respectively, in household shrines and temples (Table 49).

Dzibilchaltun

The grave sample of Dzibilchaltun suffers from the same problem as exists with the Barton Ramie and San José samples: the predominance of one grave type. In this case, crypts, not simple graves, prevail with 75/116 graves. There also exists the problem of an abundance of graves in one context: 98/116 graves were in residences. As a result any correlation between grave type and grave context would be difficult. An association between simple graves and residences should still be visible if such a connection exists, but since roughly equal percentages of crypts and simple

Table 52: Grave type per grave context at Seibal

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
midden	1						1
housemound platform	18		6	1		2	27
palace	1		1				2
plaza	2		3	1			6
ceremonial platform	2		2				4
household shrine	5		5	1			11
total	29		17	3		2	51

Table 53: Grave type per grave context at Copan

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
housemound	18		3				21
plaza	7			3	2	1	13
unknown	12		3	15	1	2	33
total	37		6	18	3	3	67

graves were found in residences, i.e. 88% (66/75), and 80% (28/35), respectively (Table 50), no such connection exists. The presence of crypts prevails in every other context with a meaningful sample, and thus, crypts seem to have been a site preference.

Altar de Sacrificios

Like Barton Ramie and San José, the graves at this site are predominantly simple graves (125/136). Though the graves were found in several different contexts, simple graves prevail in each (Table 51). The prevalence, however, may be a result of excavation bias (see p. 306).

Seibal

The grave sample at Seibal also consists of an abundance of simple graves (29/51). Coincidentally, 29 graves were also in residential structures (Table 52). Perhaps the prevalence of simple graves may then be related to the fact that many burials were found in such contexts (19 of the 29 were simple), but since the same number of simple graves and cists were found in ceremonial platforms and household shrines (Table 52) simple graves may be a site preference.

Copan

The data on graves at Copan suffer from a different but equally difficult problem of having 33/67 graves in an unknown context (Table 53). Little information may be extracted from these. The remaining sample suggests a prevalence of simple graves in housemounds (18/21), and possibly plazas (7/13).

Table 54: Grave type per grave context at Piedras Negras

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
vaulted residence				3			3
palace					1		1
cave	1						1
plaza					1		1
ball court	1						1
temple	3						3
ceremonial platform			1				1
total	5		1	3	2		11

Table 55: Grave type per grave context at Palenque

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
temple	3			8	2		13
plaza				2			2
unknown	1		4	9	3		17
total	4		4	19	5		32

Piedras Negras

The rather small sample of graves at Piedras Negras limits the information that may be gleaned. The few graves there are go against previously noted associations: simple graves, not crypts or tombs, in the temple, and crypts, not cists or simple graves, in the residence (Table 54).

Palenque

The Palenque data are hindered by the presence of 17 graves found in unknown contexts (Table 55). This is unfortunate because crypts and tombs are the prevalent grave type at the site (24/32). But is this because of a site preference or because most graves are from ceremonial structures? Not knowing the context of the 17 graves prohibits an answer.

Toniná

With 18/25 graves, crypts are the prevailing grave type at the site (Table 56). Whether this is a site preference is questionable since most of the burials were excavated from the central ceremonial precinct.

An overall correlation was made for the more relevant grave types, i.e. simple, cist, crypt and tomb, and grave contexts, i.e. residential vs. ceremonial structures (excludes the graves found in unknown contexts, middens, and the cave and ball court at Piedras Negras). A few general points may be made (Table 57):

- 1) Simple graves prevail in every context except vaulted or palatial residences. This anomaly is partially accountable by the fact that 56 of the vaulted residential graves were from Dzibilchaltun, a site at which crypts prevailed. This and the fact that most palace graves were simple imply

Table 56: Grave type per grave context at Toning

Grave Type Grave Context	simple	chultun	cist	crypt	tomb	unclassified	total
residence	2			7		2	11
plaza			1	2	2		5
temple				9			9
total	2		1	18	2	2	25

Table 57: Overall correlation of most grave types and grave contexts

Grave Type Grave Context	simple	cist	crypt	tomb
residence & housemound	339	74	44	
vaulted & palatial residence	16	13	57	
palace	84	20	14	1
plaza	34	5	11	5
plaza stela & temple altar	7	1	1	
temple	43	14	34	22
ceremonial platform	93	11	10	2
household shrine	43	26	38	6

that the anomalous statistic for elite residences is not necessarily indicative.

2) The overall prevalence of simple graves suggests sophisticated grave preparation was not a necessary or important criterion for most burials (but see point 4 below).

3) Many of the simple graves in temples, ceremonial platforms and plazas are believed to have contained sacrificed individuals, thus accounting for such graves (see chapter 11). Again grave preparation would not have been important, but location in a religious structure and /or at a place providing maximum display (of the sacrifice) probably would be.

4) Most tombs were found in temples and household shrines suggesting an association between such graves and such buildings. These graves probably contained relatively wealthy individuals for whom grave preparation and location were important (see chapters 9 & 10).

Summary

This correlation of grave type and grave context provides a number of points. Firstly, at 7 sites, Baking Pot, Barton Ramie, Benque Viejo, San José, Holmul, Altar de Sacrificios and Seibal, simple graves were the prevalent type of construction. The sample size at Benque Viejo was too small to be necessarily indicative, and because all or most graves at Barton Ramie and San José were found in residences this could indicate an association between simple graves and residences rather than a site preference. Secondly, at Dzibilchaltun, Palenque, and Toniná, crypts prevailed. However, this dominance may be a result of excavation bias. Since excavation was concentrated in the central ceremonial precincts of Palenque and Toniná, and 98/116 Dzibilchaltun graves were in residences, crypts may only prevail in these respective contexts. Thirdly, at Uaxactún, Tikal, Altun

Ha and Copan (and probably Barton Ramie and San José), simpler graves (simple & cist) dominate in residential buildings, suggesting an association. Conversely, at Mountain Cow, Holmul, Uaxactún, Tikal and Palenque, the majority of more sophisticated graves (crypts and tombs) were found in household shrines and temples, suggesting an association between these types and structures. Fifthly, simple graves prevailed in ceremonial platforms at Altun Ha, and in plazas, plaza stelae and temple altars at Uaxactún. Many of these burials were sacrificial.

CHAPTER NINE

GRAVE GOODS

Grave Goods

The final aspect of the burial data to be considered for correlation is the grave furniture: the type and quantity of goods accompanying the interments. There was a considerable range in the variety of this furniture and this has been classified into the following categories:

- 1) pottery, i.e. bowls, plates, dishes, etc.
- 2) polychrome or stuccoed pottery, but includes stuccoed clay or wooden figurines;
- 3) jade beads, discs, earflares, etc.;
- 4) jade figurines and pendants;
- 5) shell beads, discs, earflares, etc.;
- 6) shells and shell pendants;
- 7) flint and obsidian, both utilitarian and eccentric;
- 8) groundstone, unidentified stone, manos or metates;
- 9) bone, teeth or animal shells, i.e. turtle carapace or armadillo shell;
- 10) clay objects other than pots, usually whistle figurines;
- 11) pearls, pyrite, mica or coral;
- 12) textiles, animal pelts or wooden objects;
- 13) stingray spines;
- 14) codices;
- 15) mosaic masks, plaques or vessels;
- 16) copal.

Why was the grave furniture classified in this way? Firstly, polychrome and stuccoed pottery were distinguished from plain pottery because it is thought polychrome and stuccoed pots were of more value than plain pots. Jade beads, discs, etc., were distinguished from jade figurines and pendants because it is believed that, for example, an 8 lb. jade figurine of Kinich Ahau is significantly different from a simple, miniscule jade bead. Because of the potential difference in the value of the two these

were distinguished. Shells and shell pendants were distinguished from shell beads for exactly the same reason. The rest of the grave goods were classified on the basis of the nature of the material, i.e. bone, clay, stone or flint, or their respective purpose in the grave, e.g. textiles, animal pelts and wooden biers were used to cover or support the body of the deceased, and charcoal, cinnabar and carbon remains reflect some post-interment offering or ritual act. Finally, the pearl, pyrite, coral, mica, etc., category is a sort of miscellaneous one.

It is recognized that function would have been as good a method of distinguishing grave goods, i.e. as bone tools, spear points, spindle whorls, etc. Some objects could indicate the occupation of the deceased and whether some occupations were sex specific. But I did not do so for 3 reasons. Firstly, original lists of grave goods from some excavations were often merely listed as objects of clay, bone or stone, or as tools without specifying what sort of tool. Secondly, specific tools were placed in graves of individuals of different sex and age groups, e.g. stone spindle whorls with the adult male of Burial R11, Baking Pot, the child of Burial B3, Baking Pot, the youth of Burial X1, Holmul, or the adult female of Burial 184, Tikal. Thirdly, the graves contained few tools that could be specifically identified as tools for use in life. The vast majority of grave goods served one of the following roles:

- 1) a specific function in the grave, e.g. animal skins to cover the body or wooden biers to support it;
- 2) a reflection of the social and political status of the deceased, e.g. the jade and shell beads, necklaces, pendants, headdresses and other finery;
- 3) an indicator of religious and ritual significance, e.g. obsidian lancets, stingray spines and eccentric flints.

Consequently, though a functional classification could be ascertained and

seem useful in theory, in fact only limited and ambiguous information could be gleaned from it.

The statistical count of most items and the resulting mean value should only be considered as approximate. This is primarily the case with jade beads, shell beads, shell pendants, flint, and obsidian at the sites of Uaxactún and Tikal. In some of the burials at these sites, the excavators did not stipulate the number of shells, jade beads, etc., but merely indicated their presence or that a necklace was found with jade, shell or whatever. In such instances, I counted this presence as one if in the singular, or two if in the plural. In other instances, shell or flint were listed as being several, in the tens, or in the hundreds. In such cases this presence is counted as 4, 10 or 100, respectively. Thus, at the said sites the number of shells, jade beads or shell beads, and the resulting tabulated mean are underestimated. Examples of such burials are Burials A66, A22 & A2, Uaxactún, and 166, 167, 48, 195, 116, 196 & 77, Tikal. With the exception of Burials A66 & A2, there were such large quantities of furniture in each burial that the underestimation would not be noticed let alone create a misleading value.

A final point about grave furniture must be emphasized. There has been no attempt to qualitatively evaluate the different types of grave goods. A few categories were created with this difference of value in mind, merely to make the statistics easier to work with should a method of evaluating furniture be devised - an evaluation not attempted in this work (but see below). I have merely provided mean values on the basis of the total amounts of the different types of furniture found in all the graves at each site. There is no doubt that different items of a single material, e.g. jade, and the different materials, eg. jade, shell, pottery, obsidian, etc., were each evaluated differently by the Maya generally, probably differently from site to site depending on the availability of the different

Table 58: The mean number of grave goods per grave for each context at Mountain Cow

Grave Goods									
	Grave Context								
house platform plaza household shrine	pottery								
	polychrome or stuccoed pottery								
	jade beads, ear- flares, etc.								
house platform plaza household shrine	shell beads, ear- flares, etc.								
	shells (conch) & shell pendants								
	flint or obsidian								
house platform plaza household shrine	stone or metate								
	bone, teeth or carapace								
	clay figures, beads or whistles								

Table 59: The mean number of grave goods per grave for each grave type at Mountain Cow

Grave Type \ Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear-flares, etc.	shell beads, ear-flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bone, teeth or carapace	clay figures, beads or whistles
simple	2.67		1	0.33				1	
chultun	3.75	0.5		2.5					
cist	7					2	1	3	
crypt	6.71	0.43	1	0.43	0.71	0.14	0.43		
tomb	9		1.33	4.67		0.33	0.67		0.33

artefacts, and differently again by the individual Maya. However, I have no idea how the Maya equated jade with flint or shell with obsidian, and so on, so each material and the respective artefacts are treated as more or less equal (and see below).

From this tabulation of grave goods, correlations with grave context, grave type, and the age and sex of the interred are done for most sites. Correlation with ceramic phase is not attempted because of respective site excavation biases. It will be shown that burials from temples, household shrines, and to a lesser extent, ceremonial platforms, were better furnished. The different excavation strategies would produce varying numbers of burials from these contexts during specific ceramic phases. Since burials from the different contexts had such varying amounts of furniture, such a correlation would yield distorted and very misleading statistics.

Mountain Cow

Table 58 reveals that, with the exception of jade beads and flint/obsidian, the 9 household shrine burials contained the most furniture and the largest variety of furniture per grave. Moreover, the 2 richest burials, Burials 6 & 8, were in household shrines (Table I, Appendix I). One residence platform burial, Burial 4, and 2 plaza burials, Burials 3 & 11, were moderately well furnished but do not really compare with Burials 6 and 8.

With respect to grave type (Table 59), tombs and crypts had more and a greater variety of furniture per grave, though the one cist burial had more flint, obsidian, stone and teeth. Since 6/10 of the crypts and tombs were located in household shrines (Table 44), then it should follow they were better furnished.

It should also be noted that pottery, shell, and to a lesser extent,

Table 60: The mean number of grave goods per grave for each context at Baking Pot

Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	pyrite, coral or pearls	textile remains
house platform									0.67		
plaza								1			
plaza stela											
temple altar	2	1						0.2	0.27	0.73	
ceremonial platform	0.2		2.2		0.13	0.07					
temple	2.6	1.2	1	0.4	1.2	0.6	3.8	1.6	1.6	0.67	0.33

Table 61: The mean number of grave goods per grave for each grave type at Baking Pot

Grave Type \ Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear-flares, etc.	jade pendants or figurines	shell beads, ear-flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	pyrite, coral or pearls	textile remains
simple	0.62	0.24	0.19		0.14	0.05		0.14	0.29	0.1	
clst	0.33	0.33	0.67	0.67	1	1	6.33	2.67	2.67		0.33
crypt	2	0.5	16		1			0.5	1	5.5	
unclassified											

jade, were the prevailing forms of furniture at the site. No correlation with age and sex was attempted because too few of the interred had their age or sex discerned.

Baking Pot

As at Mountain Cow a similar pattern emerges. Apart from jade and possibly pyrite, the 5 temple burials had a larger variety of, and more, furniture per grave (Table 60). Indeed, 3 of the 4 richest burials at the site, Burials B5, B1 & B7, were in the temple, and only one ceremonial platform burial, Burial R15, had a comparable number of grave goods (Table II, Appendix I). Most other burials had little furniture, and the plaza and plaza stela burials had none at all.

But there is not such a disparity in the amount or variety of furniture in the different grave types. Cists had the greatest variety of furniture per grave, while crypts had more of certain types of goods, i.e. pottery, jade and pyrite (Table 61). In addition, though the best furnished ceremonial platform burial was a crypt (R15) and the best furnished temple burial, a cist (B5), two other well furnished temple burials were simple graves (B1 & B7). This, and the less obvious disparity in the amount and variety of grave furniture per grave in the different grave types, suggest that context was the more important factor in wealth association.

Jade, shell, pottery, obsidian, bone and stone were the most prevalent grave goods found at the site, with jade most prevalent in ceremonial platforms, and pots, shell, obsidian and stone in temples.

No correlation with age and sex was attempted because there were only 2 child burials, and the 11 burials in which individuals had been sexed contained little or no furniture (Table II, Appendix I).

Table 62: The mean number of grave goods per grave for each grave type at Barton Ramie

Grave Goods		Grave Type
pottery	0.88	simple
polychrome or stuccoed pottery	0.1	clst
jade beads, ear- flares, etc.	0.09	crypt
jade pendants or figurines	0.02	
shell beads, ear- flares, etc.	0.73	
shells (conch) & shell pendants	0.1	
flint or obsidian	0.43	
stone or metate	0.18	
bones, teeth or carapace	0.21	
clay figurines	0.01	
charcoal or carbonized seeds	0.02	

Table 63: The mean number of grave goods per grave for each adult, child, adult male & adult female interment at Barton Ramie

Grave Goods Age & Sex	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay figurines	charcoal or carbonized seeds
adults	1	0.12	0.09	0.01	0.57	0.1	0.52	0.2	0.24		0.02
children	0.65				3.2		1.15			0.05	
males	0.71	0.07	0.11		1.5		0.11	0.04	0.14	0.04	
females	0.77	0.03	0.06	0.03		0.16	0.71	0.35	0.06		0.03

Barton Ramie

This is the one site in which all the burials were found in house platforms. No correlation with context was made as a result. Probably because there were no temple or household shrine burials, most graves were poorly furnished, 51/114 containing none at all. Most of the graves were simple (104), but the 9 cists and 1 crypt were not much better furnished - except in shell beads - and did not have as much a variety of furniture as simple graves (Table 62).

The correlation with the different age groups reveals that although adults were generally buried with more varieties of furniture, some children had been buried with plenty of shell and flint (Table 63). But, in fact, only 2 burials containing children were well furnished: a multiple burial of 2 adults and a child (147-2), and one of a youth (123-22). (It should be mentioned that the child category of burials consists of all non-adults, i.e. infants, children and youths, and see Appendix I for the age constitution of the different age groups.) And really only 2 adult burials were well furnished: Burials 1-6 & 260-3. Thus, there was not a great disparity in the furnishings of adult and child burials.

Neither was there a disparity between male and female burials. Male burials had more shell beads and bone per grave, while female burials seem to have had more pots, shells, flint and stone (Table 63).

There was not a great deal of furniture at the site, but pottery, shell, flint, stone and bone were the most prevalent of what little there was.

Benque Viejo

With only 3 burials any correlation is of little value, especially since one burial was robbed and another was empty. The remaining burial

Table 64: The mean number of grave goods per grave for each context at San José

Grave Context \ Grave Goods	pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay beads or figurines	pearl, pyrite or coral	textile remains
residence	0.84			0.32	0.92	0.36	0.04	0.28	0.4	0.32	
palace	0.73	0.13	0.07	0.1	3.06		0.07	0.77	0.1	0.03	0.1
ceremonial platform	2.27	4.44	0.09	0.73	0.09			0.09		0.27	
temple	2.25	0.25	0.25		0.5	0.25		0.5			

Table 65: The mean number of grave goods per grave for each adult, child, adult male & adult female interment at San José

Grave Goods	Age & Sex										
adults	pottery										
	jade beads, ear- flares, etc.										
	jade pendants or figurines										
	shell beads, ear- flares, etc.										
	shells (conch) & shell pendants										
	flint or obsidian										
	stone or metate										
	bones, teeth or carapace										
	clay beads or figurines										
	pearl, pyrite or coral										
	textile remains										
	children	1.14	1.21	0.09	0.36	2.19	0.17	0.05	0.38	0.05	0.29
0.35		0.08	0.04	0.06	0.65	0.08		0.58	0.42	0.04	0.06
0.67				1.2	0.56	0.11	0.11	0.33		0.78	
males											
females	1										

was of a child but well furnished, Burial B3.

San José

The burials of the different contexts at this site showed little disparity in the amount and variety of furnishings per grave. Burials in ceremonial platforms had more pots, jade beads and shell beads, while palace and residential burials had more shells and bone per grave (Table 64). Otherwise, the furnishings were comparable. There were only 8 burials with more than 10 items of furniture, i.e. Burials C15, D1, A7, B8, B16, B18, C11 & D3. Two were from residences, 3 from ceremonial platforms, and 3 from palaces. I should have thought the temple burials would be better furnished, but since 3 of the 4 consisted of skulls only, and were probably sacrifices (see chapter 11), there were few grave goods.

Since 68/70 graves were simple there was little to be gained in correlating grave goods with grave type. Nor was it possible to decently compare male and female burials since there were only 2 identified female interments. With respect to adult and child burials, adult burials contained more furniture per grave apart from clay figurines and bone (Table 65). Apparently, all 11 of the clay whistle figurines were found in child burials, i.e. Burials A11, B8, B11 & B21. Perhaps they were children's toys.

Holmul

There is no question that the 14 temple burials at Holmul were much better furnished in both variety and amount than the 4 housemound and 4 household shrine burials (Table 66). In addition, the 4 richest burials were in the temple, Burials B13, B5, B1 & B6 (Table VI, Appendix I). With respect to grave type, simple graves were the best furnished (Table 67),

Table 66: The mean number of grave goods per grave for each context at Holmul

Grave Goods												
Grave Context												
	pottery											
	polychrome or stuccoed pottery											
	jade beads, ear- flares, etc.											
	shell beads, ear- flares, etc.											
	shells (conch) & shell pendants											
	flint or obsidian	0.5	0.75	0.5								
	stone or metate		0.25	0.57								
	bones, teeth or carapace	0.25	0.25	4.29								
	clay objects and figurines	0.5		0.07								
	pearl, pyrite, coral or mica			11.29								
	textile remains		1									
	charcoal		0.5	0.14								
	stingray spine			0.29								
	stucco fragments			0.43								
housemound												
household shrine		2	1.2									
temple		5	0.29	3.14	15.21	1.57	0.5	0.57	0.25	0.07		

Table 67: The mean number of grave goods per grave for each grave type at Holmul

Grave Goods		Grave Type
simple	clst	
crypt	3.14	pottery
	6.5	polychrome or stuccoed pottery
	0.71	jade beads, ear- flares, etc.
	0.14	shell beads, ear- flares, etc.
	0.57	shells (conch) & shell pendants
	0.14	flint or obsidian
	0.43	stone or metate
	0.14	bones, teeth or carapace
	0.14	clay objects and figurines
	0.23	pearl, pyrite, coral or mica
	12.15	textile remains
	0.57	charcoal
	0.28	stingray spine
	0.5	stucco fragments
	0.14	

and indeed, the 4 richest burials were in simple graves. This suggests that context, not grave type, was the important factor in wealth association of burials (at Holmul).

Pottery, shell, bone, pyrite and mica were the prevalent types of furniture. As none of the interred was sexed and no child burials existed, an age and sex correlation was not practicable.

Uaxactún

With the exception of shell beads and clay beads, the 16 temple burials contained the most and the largest variety of furniture per grave (Table 68). The 4 richest burials, Burials A29, A31, A22 & A20, were also in temples. Only Burial B2, in a ceremonial platform, Str. B-XI, was as remotely as well furnished as the 4 mentioned, and generally only ceremonial platform burials had comparable amounts of furniture per grave as temple burials. There was little difference in the wealth of palace and house platform burials. Plaza, plaza stela, and temple altar burials had an excess of jade and shell, but little else (Table 68).

Different types of furniture predominated in different grave contexts (Table 68). Jade, pyrite and pots prevailed in temples, jade, shell and pyrite in ceremonial platforms, pots in house platforms, bone and charcoal in palaces, jade in plazas, and jade and shell in plaza stela and temple altar interments. Stingray spines, codex remains and jade mosaic masks were only found in a few ceremonial platform and temple burials, i.e. Burials A6, C1, A29, A22, A20, A20 & A23. The reasons for this distribution may be because temple and ceremonial platform burials consisted of individuals of some wealth and social standing; plaza stela, temple altar and many plaza burials represent dedicatory cache and sacrificial burials in which the jade and shell were provided for the objects of veneration,

Table 68: The mean number of grave goods per grave for each context at Uaxactún

Grave Goods																	
Grave Context	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects and figurines	pearl, pyrite, coral or mica	cinnabar or charcoal	textile or animal pelt	stringray spine	codex remains	mosaic mask, plaque or vessel	copal
house platform	1.14	0.29			0.14		0.24		0.14			0.24					0.04
palace	0.62	0.17	0.64	0.02	0.15		0.13	0.02	0.57	0.02	0.04	0.38	0.08				
plaza	0.31	0.12	5	0.06	1.25	0.19			0.19	0.31							
plaza stela	2		0.5		45.5				0.5								
temple altar	1.8		16.4	0.2	0.2	0.2	1	0.2	1	0.4							
ceremonial platform	1.89	0.67	1.11		53.77	0.56	0.56		0.44		3.56	0.22	0.11	0.22	0.11		
temple	6.69	0.63	19.56	0.06	2.5	1.88	0.63	0.25	0.81	0.06	5.25	0.38	0.25	0.19	0.06	0.12	0.12

Table 69: The mean number of grave goods per grave for each grave type at Uaxactun

Grave Type \ Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear-flares, etc.	jade pendants or figurines	shell beads, ear-flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects and figurines	pearl, pyrite, coral or mica	cinnabar or charcoal	textile or animal pelt	stingray spine	codex remains	mosaic mask, plaque or vessel	copal
simple	0.63	0.04	3.1	0.04	2.27	0.1	0.13	0.02	0.31	0.12		0.15					
chultun	0.67	0.67															
cist	0.5	0.13	0.1	0.03	0.13		0.16	0.03	0.45	0.03		0.29	0.1				
crypt	2.15	0.73	12.58	0.04	19.9	0.19	0.5	0.12	0.77	0.04	4.46	0.46	0.15	0.12	0.04	0.08	0.12
tomb	22	1.25	5.75		1.75	7.25	1.5	0.25	1.25	0.25	0.5	0.5	0.5	0.5	0.25		0.25

Table 70: The mean number of grave goods per grave for each adult, child, adult male & adult female interment at Uaxactún

Grave Goods Age & Sex																				
	pottery																			
	polychrome or stuccoed pottery																			
	jade beads, ear- flares, etc.																			
	jade pendants or figurines																			
	shell beads, ear- flares, etc.																			
	shells (conch) & shell pendants																			
	flint or obsidian																			
	stone or metate																			
	bones, teeth or carapace																			
	clay objects and figurines																			
	pearl, pyrite, coral or mica																			
	cinnabar or charcoal																			
	textile or animal pelt																			
	stingray spine																			
	codex remains																			
	mosaic mask, plaque or vessel																			
	copal																			
adults	2.27	0.35	5.81	0.04	7.37	0.51	0.3	0.05	0.6	0.1	1.57	0.22	0.1	0.07	0.03	0.03	0.05			
children	0.79	0.11	2.21	0.03	2.59	0.03	0.23	0.05	0.21	0.05	0.05	0.4	0.05							
males	3.56	0.31	7.03	0.03	1.12	1.1	0.38	0.06	1	0.16	0.28	0.28	0.22	0.12	0.06	0.03	0.06			
females	1.81	0.27	0.36	0.04	22.04	0.04	0.45	0.04	0.41	0.04	1.45	0.18								

i.e. the gods and ancestors, and not the interred (see chapter 11); and the palace and housemound burials consisted of the least wealthy members in whose graves utilitarian objects were the primary furniture, i.e. pots and bone tools. Overall, jade, shell, pottery and bone prevailed at the site.

With respect to grave type (Table 69), crypts and tombs were the best furnished graves. Given that all 4 tombs were in temples, and 12/26 crypts were in temples or ceremonial platforms (Table 47), this is not surprising. Furthermore, most of the moderately furnished palace burials were crypts, e.g. Burials A38, A40, A41 & A43. It probably follows that if one had the wealth then one could afford to pay for the construction of a crypt or tomb.

Adult burials tended to have more furniture per grave than child burials (Table 70), hardly surprising since the richest temple burials were of adults. Few child burials contained much furniture and those that did were either dedicatory cache burials to a temple, e.g. Burials E1 & E4, or the children accompanied adults for whom the furniture belonged, e.g. Burial B1. Similarly, male burials were generally better furnished than female ones, again hardly surprising given that 3/4 richest burials were of adult males. Adult female burials were not impoverished, however, e.g. Burials B1 & B2, and there were more shells, pyrite and flint per female grave than male.

Tikal

As already observed at other sites, temple graves contained the most and largest variety of furniture per grave than in any other context (Table 71). But household shrine burials did have comparable amounts and variety, and in only temple, household shrine and ceremonial platform interments were stingray spines and jade mosaic masks found. (The mosaic plaque in the

Table 71: The mean number of grave goods per grave for each context at Tikal

Grave Goods Grave Context	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	pearl, pyrite or coral	charcoal or cinnabar	textile remains	stingray spine	mosaic mask, plaque or vessel	copal
housemound	0.78		0.03		0.06	0.03	0.03	0.03	0.16		0.03				
elite residence	3.33	1			1	0.33	1.67	1.33	1		0.33				
palace	5	2			1			1							
midden	12.67		0.67		0.67	1	1.33	1.33	0.67	0.67				0.33	
plaza	1.4					0.4	0.4		2.2						
ceremonial platform	7.29	3.43	0.29	0.14	0.29	0.86	0.57			0.43		0.29	0.29	0.29	
temple	14.4	4	20.2	0.47	1.2	1.53	0.73	0.53	6.93	1.07	0.27	0.73	0.73	0.4	0.07
household shrine	2.9	1.17	4.63		10.54	1.32	2.2	0.27	2.44	1.13	0.07	0.02	0.27	0.05	

Table 72: The mean number of grave goods per grave for each grave type at Tikal

Grave Type \ Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	pearl, pyrite or coral	charcoal or cinnabar	textile remains	stingray spine	mosaic mask, plaque or vessel	copal
simple	2	0.03	0.05		0.27	0.22	0.05	0.1	2	0.03	0.19			0.03	0.03
chultun	0.5				0.25	0.25	0.5		2.5						
cist	1.67	0.33	0.24		0.14	0.1	0.1	0.1	0.19	0.05	0.1		0.05		
crypt	3.38	0.88	21.5		52	3.13	2.62	0.88	3.12	5.75	0.12		1.12		
tomb	16.6	5.25	26	0.62	0.88	2.12	4.7	0.38	6.7	0.32	0.25	0.75	1	0.32	
unclassified	2.71	1.5	0.05		0.24	0.05	0.38	0.24	0.05	0.05				0.05	

Table 73: The mean number of grave goods per grave for each adult, child, adult male & adult female interment at Tikal

Grave Goods Age & Sex	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	pearl, pyrite or coral	charcoal or cinnabar	textile remains	stringray spine	mosaic mask, plaque or vessel	copal
adults	4.16	1.24	6.49	0.11	4.86	0.31	0.5	0.13	1.4	0.2	0.13	0.12	0.2	0.12	0.01
children	2.12	0.41	1.88		1	3.76	7.53	0.53	5.53	2.59	0.12	0.06	0.59	0.12	
males	5	1.84	8.4	0.1	0.4	0.94	1.56	0.14	3.62	0.22	0.1	0.2	0.28	0.22	
females	4.4	0.9	9.33	0.11	23.55	0.5	0.39	0.33	1	0.5	0.16	0.05	0.16		0.05

midden burial (PD50) is disturbed and the plaque was probably removed from another grave.) Indeed, the richest burials of the site were found in these 3 contexts, i.e. Burials 166, 167, 85, 22, 10, 48, 195, 23 & 116 in temples, 128, 160 & 132 in household shrines, and 196 in ceremonial platforms. Since so many graves were found in these contexts (63/107) - because of excavation design - there was more grave furniture found at Tikal than at any previous site, especially in pottery, shell, jade, flint, bone, and relatively speaking, stingray spines and jade mosaic objects. This correlation really does indicate where the wealthy were buried.

With respect to grave type (Table 72), since all 16 tombs and 7/8 crypts were in temples, household shrines or ceremonial platforms (Table 48), then it would be expected that such graves would have had the most furniture per grave. They did.

Adult and child burials were both comparably furnished. Adults were generally buried with more pottery, jade and shell beads, children were generally buried with more shells, flint/obsidian, stone, bone, pyrite and stingray spines (Table 73). I would not have anticipated many stingray spines to have been placed with children, but stingray spines were buried with the youth in Burial 132, and in a multiple burial containing a youth (Burial 160). The fact that some child (and youth) burials were well furnished has some interesting implications (see chapter 10).

Male and female burials were also comparably furnished. Male burials averaged more flint, obsidian and bone while female burials had a much greater amount of shell per grave (Table 73). Clearly females enjoyed a status that was comparable with males.

Altun Ha

Altun Ha continues with this pattern of temple and household shrine

Table 74: The mean number of grave goods per grave in each context at Altun Ha

Grave Goods Grave Context	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects and figurines	pearl, pyrite or coral	charcoal or cinnabar	textile or animal pelt	stingray spine	mosaic mask, plaque or vessel	codex
residence	0.78	0.2	0.4	0.05	1.15	0.18	0.42	0.03	0.16	0.02	0.04			0.03		
palatial residence	0.68	0.16	0.2	0.04	4.64	0.12	6.44		0.08		0.6			0.08		
plaza																
ceremonial platform	0.46		1		10.8	0.8	0.2		0.06			0.65				
temple	3.12	0.84	56.76	1.88	291.1	3.36	10.6	0.44	6.52	0.48	6.6	0.24	0.12	1.28	0.04	0.04
household shrine	1.32	0.28	4	0.15	23.34	0.51	4	0.57	0.19	0.06	7.21			0.02	0.02	

Table 75: The mean number of grave goods per grave for each grave type at Altun Ha

Grave Goods																	
Grave Type		pottery	polychrome or stuccoed pottery	jade beads, ear-flares, etc.	jade pendants or figurines	shell beads, ear-flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral	charcoal or cinnabar	textile or animal pelt	stingray spine	mosaic mask, plaque or vessel	codex
simple	0.62	0.11	0.42	0.02	3.17	0.37	0.4	0.01	0.16	0.02	0.08	0.13			0.01		
chultun																	
cist	1.03	0.16	0.77	0.11	47.7	0.41	3.2	0.05	0.7	0.08	1.05	0.05			0.07	0.03	
crypt	1.9	0.62	12.64	0.69	36.7	1.14	10.4	0.36	1.5	0.14	17.4	0.24			0.33		
tomb	8	2.75	273.8	5.75	128.5	13	28	0.75	8.75	1.25	197.5	0.75	1.25		4.5		
unclassified	0.33	0.11			0.33		0.45	0.11									0.25

Table 76: The mean number of grave goods per grave for each adult, child, adult male & adult female interment at Altun Ha

Grave Goods Age & Sex	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral	charcoal or cinnabar	textile or animal pelt	stingray spine	mosaic mask, plaque or vessel	codex
adults	0.96	0.22	8.86	0.27	31.75	0.55	3.38	0.09	0.64	0.05	8.34			0.17	0.01	0.01
children	0.63	0.14	0.26	0.05	23.25	0.42	0.44	0.02	0.3	0.06	0.04				0.01	
males	1.56	0.33	16.78	0.69	74.12	1.03	7.9	0.16	1.58	0.11	18.9		0.03	0.45	0.02	
females	0.65	0.12	1.05		9.54	0.18	0.75	0.02	0.11							0.02

having more goods and more variety of goods per grave. But the amount of furniture in some of these burials is truly staggering. Three burials had more than 1,000 items of furniture, i.e. Burials TA-1/1, A-1/2 & TE-1/2, and 7 others had between 250 and 1,000 items, i.e. Burials TA-6/1, TB-4/7, TE-1/3, TB-4/6, TB-4/2, TE-1/1 & TB-4/1 (Table IX, Appendix I). Such wealth is of course visible by the mean values in the correlation of grave goods with grave context (Table 74). These values point to temple burials being very much better furnished than those in every other context including household shrines. Though the household shrine burials were generally better furnished than those in residences and ceremonial platforms, and 3 of the 10 best furnished burials were in a household shrine, Str. E-1, all appear positively impoverished in comparison to the average wealth of the temple burials (Table 74).

With respect to grave type (Table 75), crypts and tombs each had more furniture per grave than simple graves and cists. But as well furnished as crypts might have been, tombs were very much better furnished. The 4 tombs of the site were in temples, i.e. Burials TA-1/1, TB-4/7, TB-4/1 and TB-4/5, and 3/4 were among the 10 best furnished burials.

Table 76 reveals that adult burials were richer than child burials per grave, notwithstanding the fact that the best furnished grave at the site contained a youth (Burial A-1/2). Most other child burials were not very well furnished. Unlike Tikal, female burials averaged much fewer grave goods per grave than male burials. Indeed, only 2 primary adult female interments were well furnished, i.e. Burials TE-1/3 and C-16/17 (Table IX, Appendix I).

Every type of furniture was found at Altun Ha, particularly in the temple burials. Jade, shell, flint, obsidian, bone and pyrite were found in considerable quantities. Given the quantity of some goods, there were relatively fewer pots per grave than at Uaxactún and Tikal.

Table 77: The mean number of grave goods per grave for each context at Dzibilchaltun

Grave Context	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	charcoal or cinnabar
residence	1.22		0.15	0.05	0.3	0.25		0.02	0.02	0.02	
vaulted residence	2.25		0.52	0.02	0.27	0.23	0.04	0.3	0.09	0.09	
palace	3					0.5					
ceremonial platform	0.75		0.25	0.25	0.25					0.75	
temple											
household shrine	2.1	0.31	2.15	0.23	12.38	2.62	0.23	0.69	1.23	0.08	0.15

Table 76: The mean number of grave goods per grave for each grave type at Dzibilchaltun

Grave Type \ Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear-flares, etc.	jade pendants or figurines	shell beads, ear-flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	charcoal or cinnabar
simple	1	0.06	1	0.11	0.4	0.09		0.43	0.17	0.09	
chultun											
cist	1.75				4	1.75		0.5		0.5	
crypt	1.12	0.03	0.36	0.01	0.35	0.67	0.07	0.08	0.13	0.05	
tomb	1	1	2		133			5	5	1	0.03

Table 79: The mean number of Grave Goods per Grave for each adult, child, adult male & adult female interment at Dzibilchaltun

Grave Goods		Age & Sex	
adults	1.7	pottery	
children	1.32	polychrome or stuccoed pottery	
males	1.55	jade beads, ear- flares, etc.	0.69
females	1.64	jade pendants or figurines	0.06
		shell beads, ear- flares, etc.	2.44
		shells (conch) & shell pendants	0.19
		flint or obsidian	
		stone or metate	0.11
		bones, teeth or carapace	0.16
		clay objects or figurines	0.09
		charcoal or cinnabar	0.01

Dzibilchaltun

The number of grave goods per grave at Dzibilchaltun is rather sparse compared to the amounts at Altun Ha, Tikal and Uaxactún (Table 77). Two contributing factors to this relative scarcity are the fact that at least 12 graves had been looted or never used, and only 18/116 burials had been found in temples or household shrines. Even though the single temple burial was unfurnished, the 13 household shrine burials do show the trend of being better furnished than those in residences, vaulted residences, palaces and ceremonial platforms (Table 77). The 4 richest burials, Burials 6969-1, 38-sub.2, 38-sub.6 & 612-1, were in household shrines. It is probable that the temple burial is not indicative of the site.

There is little disparity in the amount of grave goods per grave in residences and vaulted residences, and the burials of both had more furniture per grave than those of either palaces or ceremonial platforms. Pots, shell and worked stone were the prevailing grave goods of what little there was at the site.

With respect to grave type (Table 78), cists and tombs appear to have had more furniture per grave in the limited variety of furniture each had. But this is misleading on account of the small sample of each, 4 and 1 grave, respectively. A larger sample would be required to determine if this were typical. The more numerous simple graves and crypts were not well furnished and do not show much of a disparity in furnishings. Given that the 4 richest burials, 6969-1, 38-sub.2, 38-sub.6 & 612-1, consisted of a tomb, crypt, cist and simple grave, respectively, suggests context (household shrines), not grave type, was the more important factor in the wealth of burials.

With respect to age and sex (Table 79), adult and child burials were comparably furnished. As for males and females, males had a greater variety of furniture per grave, but with the exception of shell beads, females

Table 80: The mean number of Grave Goods per Grave for each context at Altar de Sacrificios

Grave Goods Grave Context	pottery	polychrome or stuccoed pottery	jade beads, ear-flares, etc.	jade pendants or figurines	shell beads, ear-flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral	copal	textile remains	stingray spine
housemound	1.49	0.3	0.53	0.02	0.19	0.25	0.06	0.09	0.09	0.02				0.02
palace	0.57	0.11	0.25				0.05	0.03	0.05					
plaza	0.75						0.75		0.75					
temple	1.18		0.36		0.09	0.18	0.09	0.09	0.45	0.09	0.09	0.09		0.09
ceremonial platform	1.74	0.87	16.71	0.16	19.39	0.16	0.77	0.03	0.97	1.45	0.03		0.1	0.84

Table 82: The mean number of grave goods per grave for each adult, child, adult male & adult female interment at Altar de Sacrificios

Grave Goods Age & Sex	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral	copal	textile remains	stingray spine
adults	1.35	0.42	5.16	0.05	5.6	0.16	0.2	0.08	0.08	0.44	0.08	0.05	0.03	0.26
children	0.71	0.11	0.26		0.16		0.16	0.03	0.84					
males	1.5	0.45	1.62	0.07	0.02	0.4	0.1	0.07	0.12	0.32	0.02	0.02	0.02	0.02
females	1.27	0.6	16.2	0.07	19.7		0.53	0.07	0.1	1.1	0.23		0.07	0.9

had marginally more goods per grave in the furniture they had.

Altar de Sacrificios

Only burials in ceremonial platforms had a much larger number of goods per grave at the site (Table 80). Though temple burials had a greater variety of furniture than those of residences, palaces and plazas, the amounts each had were comparable. The statistics, however, are misleading. There were, in fact, only 2 well furnished burials, Burials 128 & 88. Only because these were so much better furnished does the mean number of goods for ceremonial platform burials appear so much higher. The fact that these were in ceremonial platforms should not be ignored, but apart from them no other burials in any context were well furnished. Only Burials 128 & 88 contained plenty of jade, shell, flint/obsidian, and stingray spines.

The sample of cist and crypt graves is very small, 8 & 3, respectively, so the correlation of grave goods with grave type can not help but be misleading (Table 81). Since Burial 128 consisted of a crypt, it has distorted the mean number of grave goods for this type. Burial 88 was simple but with 124 other simple graves its wealth does not distort the statistics. Without Burial 128, crypt graves would otherwise have contained similar amounts of furniture to simple graves and cists.

Burial 128 & 88 also affect the statistics with regard to age and sex (Table 82). Apart from these 2 adult burials, adult and child burials were comparably furnished, as were male and female burials. However, their presence make adult, and female burials seem richer. In reality they were not. But it is of interest to note that the richest burial of the site, Burial 128, contained an adult female.

Attention to grave wealth in the different ceramic phases is not normally considered because of site excavation bias and the potential for

Table 83: The mean number of grave goods per grave for each context at Seibal

Grave Context \ Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	shell beads, ear- flares, etc.	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral
midden								
house platform	1.15	0.22	0.19	0.11		0.11		0.04
palace	4	1.5	1.5	1	1	5.5		
plaza	0.5				0.5	0.17	0.17	
ceremonial platform	0.25	0.25		0.25				
household shrine	1.73	0.64	0.09			0.36		

Table 84: The mean number of grave goods per grave for each grave type at Seibal

Grave Type	Grave Goods							
	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	shell beads, ear- flares, etc.	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral
simple	1.1	0.24	0.17	0.14		0.14	0.06	0.03
cist	1.47	0.59	0.24	0.12	0.18	0.76		
crypt	1.67				0.67	0.67		
unclassified								

Table 85: The mean number of grave goods per grave for each adult, child, adult male & adult female interment at Seibal

Grave Goods Age & Sex	pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	shell beads, ear- flares, etc.	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral
adults	1.12	0.31	0.12	0.12	0.1	0.37		0.02
children	1.22	0.22	0.33				0.11	
males	1	0.34	0.08	0.06	0.08	0.17		0.03
females	1.4	0.2	0.6	0.4	0.2	1.2		

distortion. However, Table XI of Appendix I reveals that every one of the 20 Boca-Jimba phase burials contained no furniture. Why? I really do not know but can only suggest a change in burial custom: items of wealth were kept at home and no longer placed in graves.

Seibal

This is another site where most burials had a minimum of furniture. Seibal was dominated by burials in housemounds (27/51), but even the 11 household shrine burials were not better furnished (Table 83). Indeed, palace burials averaged the most grave goods only because of the presence of Burial 1, the richest burial of the site. So Seibal burials were poorly furnished regardless of context. Neither can it really be said that any grave type had significantly more furniture per grave than any other (Table 84). If anything, cists were mildly better furnished, but then Burial 1 was a cist.

Table 85 reveals that adult and child burials had comparable amounts of furniture per grave, though adult burials had a greater variety. It also reveals that female burials appear to have been slightly better furnished. The statistics are slightly distorted by the richest burial, Burial 1, being that of a female, but that in itself is of interest.

Finally, burials which date to a contemporary phase of the Boca-Jimba phase at Altar de Sacrificios, the Tepejilote-Bayal, also contained no furniture. There were only 4 such burials but this could suggest a regional pattern since Seibal and Altar de Sacrificios were not far apart.

Copan

With 33/67 burials in unknown contexts at Copan the information ac-

Table 86: The mean number of grave goods per grave for each context at Copan

Grave Goods											
Grave Context											
house platform plaza unknown	pottery										
	polychrome or stuccoed pottery										
	jade beads, ear- flares, etc.										
	jade pendants or figurines										
house platform plaza unknown	shell beads, ear- flares, etc.										
	shells (conch) & shell pendants										
	flint or obsidian										
	stone or metate										
house platform plaza unknown	bones, teeth or carapace										
	clay objects or figurines										
	pearl, pyrite or coral										

Table 87: The mean number of grave goods per grave for each grave type at Copan

Grave Goods												
Grave Type		pottery	polychrome or stuccoed pottery	jade beads, ear- flares, etc.	jade pendants or figurines	shell beads, ear- flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral
simple	1.2	0.32	0.24	0.03	0.14	0.14	0.08			0.05	0.14	
clst	1.83	0.67	0.17		0.5		0.5			0.5		0.17
crypt	3	0.61	1	0.17	0.22	0.06	0.22			0.22		0.45
tomb	6.67	2.33	3.33	0.33	0.67	0.67	1		0.67	2	0.33	
unclassified	3	0.33	0.67									

Table 88: The mean number of grave goods per grave for each adult & child interment at Copan

Age Group	Grave Goods	
	adults	children
pottery	2	2
polychrome or stuccoed pottery	0.54	0.46
jade beads, ear-flares, etc.	0.62	0.31
jade pendants or figurines	0.08	0.08
shell beads, ear-flares, etc.	0.17	0.38
shells (conch) & shell pendants	0.1	0.08
flint or obsidian	0.19	0.38
stone or metate	0.08	0.08
bones, teeth or carapace	0.29	0.08
clay objects or figurines	0.12	
pearl, pyrite or coral	0.15	

quired from the context correlation is limited. Table 86 does reveal that burials from plazas and unknown contexts were comparably furnished. Those from housemounds were less well furnished. Generally, burials were not very well furnished, probably because none was found in a temple or household shrine. The 5 richest burials, T1, T2, T3, T4 & T11, only contained 10 - 20 items of furniture, most of it pottery (Table XIII, Appendix I).

With respect to grave type (Table 87), the 3 tombs averaged the most grave goods, followed by crypts. Cists, however, had more flint and bone per grave than crypts. Simple graves had the least goods.

Since no female skeletons were positively identified, correlation of the sexes was not possible. Correlation with adults and children (Table 88) indicate that burials of each were comparably furnished, though 4/5 richest burials contained adults.

Piedras Negras

No correlation tables were made for Piedras Negras because there were only 11 burials and of these, one was unexcavated (Burial 9), one looted (Burial 1), and one disturbed (Burial 10). Any relevant observations can be made from the data table (Table XIV, Appendix I).

Of these burials, two, Burials 10 & 5, were noticeably richer than the rest. Both were tombs, one in a plaza and one in a palace acropolis (though it may be a temple?; see chapter 3). The 3 temple burials were poorly furnished (though one was unexcavated), and one of the vaulted residence burials was moderately well furnished, Burial 2.

There are two interesting features of these 11 burials. The first is the lack of pots. Despite the presence of the 2 well furnished burials in which plenty of jade, shell, clay objects and stingray spines were found, few pots were. Only 4 pots were found in the 11 graves. Secondly,

Table 89: The mean number of grave goods per grave for each context at Palenque

Grave Goods Grave Context														
	pottery													
	polychrome or stuccoed pottery													
	jade beads, ear- flares, etc.													
	jade pendants or figurines													
	shell beads, ear- flares, etc.													
	shells (conch) & shell pendants													
	flint or obsidian													
	stone or metate													
	bones, teeth or carapace													
	clay objects or figurines													
	pearl, pyrite or coral													
	stingray spine													
	mosaic mask, plaque or vessel													
unknown	0.82	0.06	0.06			0.18	0.12	0.12	0.41	0.18	0.24			
plaza	2	0.5	0.5							0.5				
temple	1.92	0.15	86.4	0.85	0.92	3.38	8.7	1.23	0.46	0.23	0.7	0.08	0.31	

Table 90: The mean number of grave goods per grave for each grave type at Palenque

Grave Type \ Grave Goods	pottery	polychrome or stuccoed pottery	jade beads, ear-flares, etc.	jade pendants or figurines	shell beads, ear-flares, etc.	shells (conch) & shell pendants	flint or obsidian	stone or metate	bones, teeth or carapace	clay objects or figurines	pearl, pyrite or coral	stingray spines	mosaic mask, plaque or vessel
simple	0.5		0.5			1.25							
cist	0.5	0.25				1.95	6	0.21	0.32	0.11	0.27	0.05	0.11
crypt	1		11	0.42	0.21	1				1	1.8		
tomb	4	0.4	183	0.4	1.6		0.2	2.8	1.4				0.4

the 2 richest burials both contained children. I suspect that the children in these burials were dedicatory sacrifices to the primary adult interments. Unfortunately, the supposed adult in Burial 10 is missing!

Palenque

Burials in the temples were very much better furnished than those in the other contexts (Table 89). The temple burials contained a large quantity of jade, shell, flint and obsidian, and were the only ones to contain mosaic masks and stingray spines. There is, however, a curious scarcity of pottery with only 25 pots in the 13 temple burials, and 40 from the 32 burials found. This is a situation similar to that of Piedras Negras. The small number of goods from burials in the unknown context suggest that these were residences.

With respect to grave type (Table 90), the tombs and crypts were by far the best furnished graves. The 8 cists and simple graves contained only 12 items of furniture.

No correlation with age and sex was made on account of the few skeletons that were sexed (4 female and 5 male), and the existence of only 3 child burials. The presence of Pacal's very well furnished burial, Burial 11, would greatly distort the statistics of such small samples and the 3 child burials were all empty anyway.

Toniná

Burials in plazas had more and a larger variety of furniture per grave than those in residences (Table 91), but unusually, mosaic masks were found in residential and plaza graves. These were usually found only in temple,

Table 91: The mean number of Grave Goods per Grave for each context at Toniná

Grave Goods											
	Grave Context										
	pottery										
	polychrome or stuccoed pottery										
	jade beads, ear- flares, etc.										
	jade pendants or figurines										
	shell beads, ear- flares, etc.										
	shells (conch) & shell pendants										
	flint or obsidian										
	stone or metate										
	bones, teeth or carapace										
	pearl, pyrite, coral, copper or gold										
	stingray spines										
	mosaic mask										
residence	1.91	1.18				0.45	0.28	0.09	0.28	0.09	0.09
plaza	2.6	1	12.6		13.2	14.6	0.4	0.8	2.2		1
temple	6	1	8.56	0.22	8.89	0.22	0.11	0.11	0.67		0.11

ceremonial platform or household shrine graves. There was not a vast amount of furniture here, possibly because of the disturbance caused in reusing several graves for successive interments. It is not inconceivable that some or all of the furniture of previous interments was removed when succeeding ones were placed. Still, there were plenty of pots, jade, shell, copper and pyrite, but a scarcity of flint, obsidian, stone and bone. Postclassic and Late Classic temple burials had comparable amounts of furniture and certainly no decline in furnishings was visible (Table XVI, Appendix I).

Correlation with grave type was not made because of the preponderance of crypts (15/21) and because of the reuse of 4 graves. The small sample of the other grave types and the reuse of 4 graves would distort the statistics. Correlation with sex was not made because the graves in which the sex of the interred was determined were disturbed or reused. This makes it impossible to know who belonged with what furniture. With respect to age, only 1 infant burial, Burial III-1, had any furniture, and so obviously adult burials were better furnished.

Summary

The first point about the wealth of graves is that burials placed in temples, and to a lesser degree, household shrines and ceremonial platforms, contained more furniture than burials in any other context. It was also in these buildings that burials containing stingray spines, mosaic masks and codex remains were usually found. This was the case to varying degrees at Mountain Cow, Baking Pot, San José, Uaxactún, Tikal, Altun Ha, Dzibilchaltun, Altar de Sacrificios, Palenque and Toniná. At 4 of the 5 sites where this was not the case, two did not have any temple, household

shrine or ceremonial platform burials (Barton Ramie and Copan), and two had samples that were too small to be meaningful (Benque Viejo and Piedras Negras). Only at Seibal did this pattern not occur. Palace burials were definitely better furnished there. Thus, with the exception of Seibal, temples, household shrines and ceremonial platforms were generally selected as suitable structures for the interment of individuals of a significant social status and wealth. Presumably most of the grave goods were those accumulated by the individuals in attaining their status in society (as well as representing that status) and possibly included gifts from other members of the community. Given this tendency for well furnished burials to be found in temples, household shrines and ceremonial platforms, I would suggest that if a structure can not be identified by its surface features the presence of a well furnished grave(s) would strongly imply that the building was one of the above, and possibly constructed in honour of the richly endowed interment (see chapter 12).

Secondly, tombs and crypts were the best furnished of the different types of grave, especially if found in temples, household shrines or ceremonial platforms. Simple graves and cists were sometimes well furnished if found in these buildings, but not as often or as well as tombs and crypts. Even in other contexts crypts and tombs were occasionally better furnished. Nevertheless, context and not grave type was probably the more important factor in association with grave wealth.

Thirdly, there was little disparity in the amount of grave goods between adult and child burials, though at 6 sites, San José, Uaxactún, Altun Ha, Altar de Sacrificios, Palenque and Toniná, adult burials were better furnished.

Fourthly, male and female burials were comparably furnished at most sites, but those of males were found to be richer at Uaxactún and Altun Ha,

while female burials were at Altar de Sacrificios and Seibal. This split emphasizes the comparable grave wealth of male and female burials.

Grave Goods, Wealth and Site Ranking

There are two additional and interrelated points about grave goods that, though unrelated to an analysis of mortuary customs, are worth briefly commenting upon. It was noted that certain types of furniture usually prevailed in the wealthiest burials. I believe such prevalence indicates artefacts and materials that were of the most value. These items were jade figurines, shells or shell pendants, eccentric flints, flint blades, obsidian blades and lancets, stingray spines, codex remains, stuccoed and polychrome pottery, and jade mosaic plaques and masks. Not all of these were objects of wealth, e.g. stingray spines or eccentric flints, but each must have been highly valued on its own terms. This being the case, it would seem to me that the presence or absence of such items at the different sites might be used as a suitable method for measuring respective site wealth. This led me to speculate and ask: "is it possible to rank sites on the basis of the wealth represented by the grave goods found in the burials at different sites?". The data are available to attempt an answer, but with the data and the implementation of any method(s) exist enormous, if not insurmountable, problems.

The problems are as follows:

- 1) It was not possible to consult all of the known burial data from 3 sites, Copan, Tikal and Altun Ha. Consequently, the burial samples used from these sites are not complete, and though a substantial sample was acquired for Altun Ha and Tikal, any ranking of these sites could change with the inclusion of the additional data.
- 2) Many of the burials at a few of the sites had been badly disturbed or

looted. This was particularly the case with the Dzibilchaltun and Copan data but also evident from a few burials at Piedras Negras, Mountain Cow and Benque Viejo. The remaining undisturbed or unlooted burials at these sites may not reflect an accurate picture of site wealth.

3) A related problem lies with the the size of the sample at the different sites. The smaller the sample the less representative it is of a site.

The Benque Viejo, Piedras Negras, Mountain Cow, Holmul and Baking Pot samples are all probably too small to accurately represent the wealth and ranking of each.

4) The burial samples from the sites span a fairly considerable chronological period. Even though the burials of the different sites generally span the same period, a ranking of sites for a single specific date is not easily attainable. Furthermore, some of the Toniná burials also date to the Postclassic period, and therefore any rank established by grave good wealth for this site is not really relevant to the other 15 sites. Its inclusion for this purpose is therefore questionable.

5) Since temple, household shrine and ceremonial platform burials were usually the best furnished, then the sites where excavation was concentrated on such structures would provide much better furnished burials than at sites where excavation was concentrated in housemounds, palaces and plazas. A misleading ranking would result from a comparison of sites with burials originating from different contexts. For the ranking to be remotely accurate all the burials must come from the same context, and preferably, temples.

6) The most serious problem concerns the grave goods themselves and the difficulty in determining equivalent value for the different items. There first exists the task of equating different objects of the same substance, for instance, a jade bead with an 8 lb. figurine of Kinich Ahau. How many jade beads would equal this one figurine? Should it be calculated in terms

Table 92: The rank order of the sites on the basis of wealth as represented by the percentage of burials with 20 or more grave goods per site

Site	Percentage of Burials (Actual number in brackets)
Piedras Negras	27% (3)
Holmul	23% (5)
Toniná	20% (5)
Palenque	16% (5)
Tikal	15.8% (17)
Mountain Cow	11% (2)
Altun Ha	9% (22)
Uaxactún	7.8% (9)
Baking Pot	7% (2)
Barton Ramie	3.5% (4)
Dzibilchaltun	3.4% (4)
Altar de Sacrificios	2.9% (4)
San José	2.8% (2)
Seibal	2% (1)
Copan	1.5% (1)
Benque Viejo	0

Table 93: The rank order of sites on the basis of wealth as represented by an index of the average number of grave goods per burial per site

Site	Index	Mean
Piedras Negras	19.29	70.72
Palenque	6.8	43.68
Holmul	6.2	27.3
Altun Ha	4.74	54.9
Toniná	3.97	19.84
Tikal	3.1	19.5
Uaxactún	1.12	14.4
Mountain Cow	1.04	9.33
Baking Pot	0.36	4.81
Altar de Sacrificios	0.33	11.2
Dzibilchaltun	0.18	5.15
San José	0.14	4.94
Barton Ramie	0.12	2.93
Copan	0.05	3.38
Seibal	0.04	2.0
Benque Viejo	0	4.67

of numbers or by weight? More difficult still is the task of equating artefacts of different substances, e.g. shell beads with polychrome pots, flint blades with stingray spines, or obsidian lancets with jade figurines. There is certainly a difference in value of each but on what terms can we establish an equivalency? Weight can not be used for different substances and any numerical equivalency would be too open to question. Moreover, many goods do not even represent wealth, e.g. stingray spines, obsidian lancets and eccentric flints. The value of these artefacts is strictly not measurable in monetary terms. To simply use the amount of the grave goods to distinguish well furnished from poorly furnished burials is fine, but to try to establish a site ranking from the wealth represented by these artefacts is ludicrous if the wealth each object represents has not been determined.

The only possible way for any accurate ranking to be established is to use only one material, preferably jade because it is a good indicator of wealth, measure it by weight rather than by numbers, and restrict the jade weighed to that found in temple, household shrine and ceremonial platform burials. In this way, the material, jade, would represent wealth and originate from the burials of individuals who were the wealthiest and of the highest social status of the sites. The greater the wealth and status of the individuals so the greater the rank of the site. Since I am in no position to weigh any of the jade and many of the sites had little or no temple burials, this ideal method is not yet feasible.

Consequently, I instead present 4 different methods that, though spurious in one way or another, should provide a guide to what can be done.

The ranking established in Table 92 is almost certainly only a measure of the rank order of the concentration of excavation of the areas with the richest burials. The ranking in Table 93 merely indicates the

Table 94: The rank order of sites on the basis of wealth as represented by the single richest burial (number of items) per site

Site	Burial	No. of Grave Goods
Altun Ha	TA-1/1	4900
Altar de Sacrificios	128	1170
Palenque	II (Pacal)	930
Piedras Negras	5	670
Tikal	128	597
Uaxactún	B2	533
Holmul	B5	300
Dzibilchaltun	6969-1	160
Toniná	IV-7 & IV-1B,C	110 each
San José	B18	91
Barton Ramie	123-22	55
Mountain Cow	6	46
Baking Pot	B5	45
Seibal	1	24
Copan	T1	19
Benque Viejo	B3	12

Table 95: The rank order of sites on the basis of wealth as represented by an index of the average number of items of jade per burial per site

Site	Index	Mean
Palenque	13.29	35.44
Piedras Negras	8.54	23.73
Toniná	1.8	5.64
Altun Ha	1.55	7.4
Tikal	1.13	5.67
Uaxactún	0.98	4.48
Holmul	0.68	1.91
Altar de Sacrificios	0.58	4.13
Baking Pot	0.36	1.44
Mountain Cow	0.17	0.77
Copan	0.15	0.5
San José	0.13	0.81
Dzibilchaltun	0.06	0.6
Seibal	0.01	0.18
Barton Ramie	0.009	0.11
Benque Viejo	0	

average wealth of the average Maya citizen at each site. Considering the difficulties in establishing an accurate measure of the wealth of the various grave goods, it could not be done accurately here and even if it was, does the average wealth of the average citizen indicate the overall wealth (and status) of the site? I somehow doubt it.

The third method (Table 94) ranks the sites by the single richest burial at each site. It of course is ranking individuals and not sites, but one assumes the richer people lived in the richer (and higher ranked) sites. This may or may not follow, but how do we know these were the richest burials at each of the sites? Richer burials must surely exist at several of the sites, e.g. Dzibilchaltun. In addition, this method does not solve the issue of accurately measuring the wealth of the different grave furniture.

The final method (Table 95) ranks sites on the basis of the number of jade artefacts in the burials of each site. This is probably the best of the four methods presented but because it does not measure the jade by weight nor solely from temple burials (as suggested above), the method and resulting ranks are probably inaccurate.

CHAPTER TEN

SOCIAL IMPLICATIONS OF THE BURIAL DATA

Social Implications of the Burial Data

One of the stimuli prompting this investigation of lowland Maya burial customs was Rathje's (1970) article on the socio-political implications of lowland Maya burials. It was his belief (and mine) that Maya burials could tell us much about the social, political and religious aspects of ancient Maya society: "burials and associated artefacts were not randomly distributed but varied in direct relation to other aspects of Classic Maya society" (Rathje 1970: 360). Furthermore, the degree of wealth and implied status visible in a specific burial were considered to be equivalent to the degree of wealth and status attained by that individual during his/her life. With these assumptions in mind he used the limited data then available, primarily from Barton Ramie and Uaxactún, to conduct four preliminary tests and provide tentative conclusions. The main, albeit tentative, conclusion was that there had been a change in emphasis within Classic Maya society in the recruiting of political and religious officials from the entire Maya population to the recruiting of officials from small ascribed segments of the population. The burial and other data suggested that one of the factors underlying this change was economic organisation and a system involving wealth as a prerequisite for achieving office (ibid.: 359). How did he arrive at this?

From the housemound burials at Barton Ramie, differences between the Early and Late Classic burials were apparent. During the Early Classic, young adult interments were the wealthiest. Only 22% of the burials were young adults but they contained 50% of the grave goods (ibid.: 362). Conversely, during the Late Classic 18% of the burials were young adults containing only 10% of the grave goods (ibid.). Moreover, 59% of the burials were of adults as opposed to 44 % during the Early Classic (ibid.). So in the Early Classic there were fewer adult burials with those of young adults being the richest, whilst in the Late Classic more adults were buried in

housemounds, but few, and mature adults only, had much of any furniture. Young adults were the poorest burials. An expected proportion of adults and distribution of wealth were missing in the Early Classic suggesting (to Rathje) that the wealthy adults living in the outlying areas surrounding ceremonial centres were not interred in the platforms on which they resided (Rathje 1970: 364). In contrast, more adults were buried in housemounds during the Late Classic but few of these were citizens of wealth. Where had the wealthy citizens gone?

To answer this Rathje examined the available data from Uaxactún. He found that the richest burials of both the Early and Late Classic were in temple areas (*ibid.*). But a difference arose with the appearance of palaces at the end of the Early Classic, e.g. the conversion of Structure A-V from temple to palace at that time. During the Early Classic, Structure A-V contained four well furnished burials. As a Late Classic palace, however, it contained 24 adult and 12 adolescent interments with no extreme in wealth of the associated grave goods. Palaces contained burials similar in age, sex and artefact distribution to the Late Classic Barton Ramie housemounds except that they were slightly richer than the rural counterparts. In reconstructing the social model, Rathje imagined an Early Classic in which the wealthy from rural areas were interred in the temple areas of ceremonial centres. Later, with the building of palaces, a resident elite, who no longer recruited personnel from the hinterlands, developed in the ceremonial centres and social mobility between rural populations and ceremonial centre populations ceased (*ibid.*: 368).

He imagined the social system to have operated as follows (*ibid.*: 366-69). During the Early Classic young adults spent time accumulating wealth to enhance their prestige and position. If death occurred while a young adult was still in the process of accumulating wealth he would be in-

tered in a housemound. Those who lived to attain high office were buried in ceremonial centres, the hub of wealth mobilization. The constant influx of wealth into ceremonial centres was maintained by wealth being a pre-requisite for achieving office. Young adults would take their wealth with them. Wealth flowed out by the office holders sending wealth to kinsmen. So at death, office holders were buried in centres and this would account for adults missing from outlying areas.

The appearance of palaces marked the end of the Early Classic. With their appearance, the palaces replaced housemounds in the temple-housemound relationship. Ceremonial centre officials were no longer drawn from dispersed house platforms but recruited from small population segments living in, or associated with, palaces. Individuals in housemounds no longer held office and were no longer buried in ceremonial centres. This would account for the increase in adult housemound burials during the Late Classic.

Thus, as competition and the number of competitors increased, the necessary wealth became more difficult to collect. Only those who had access to ceremonial centre power and wealth could afford to provide the goods necessary to obtain office. Such wealth would follow family lines. Accretion and redistribution of wealth became a circular movement with proportionally fewer and fewer people: an incipient heredity mechanism. Although authority had to be achieved, birth determined those who had a chance of achieving it.

Rathje provides an intriguing interpretation: rotating officials based on wealth collection in the Early Classic to limited hereditary rule by the Late Classic. It is a very broad and well developed conclusion based on limited data, and on the idea (then current) that cargo systems observed among the modern Maya were a survival from the prehispanic era (e.g. Cancian 1965). I think he ought to have checked for alternative interpretations,

however, because the data collected here confirm few of his observations, question others, provide new observations, and in total suggest a rather different interpretation.

Firstly, a number of his statistics are questionable. On account of the imprecision in dating many burials it is difficult to know precisely at which point he separated the Early and Late Period burials. Nevertheless, following his designation (Rathje 1970: 360), and Burials 151-2 and 1-6, Barton Ramie, as the separation point (see Table III, Appendix I), there were in fact 16, not 10, mature adult burials in the Early Period, and 20, not 24, of other age groups. Oddly enough, the percentage of mature adult burials for the period still works out to 44% (16/36). As for the Late Period, there were 43 mature adult burials, not 44, and 35 of other age groups, not 30, producing a percentage of 55% (43/78), not 59% of mature adult burials. Though a discrepancy persists, 11%, it is not as large as Rathje suggested and probably not significant. The difference in the number of mature adult burials in the two periods might be accountable by errors in sampling and in determining the precise ages of the dead. Furthermore, the age at which Rathje distinguished young from mature adults is not clearly spelled out, and even if it was would it necessarily concur with the Maya conception of the age at which one was considered mature? Thus, there is no need to suggest that Barton Ramie adults were buried at another site during the Early Period.

Secondly, I believe there are errors regarding his percentages for grave good distribution at Barton Ramie. Contrary to what is stated, young adult burials were not the best furnished during the Early Period. He suggests that young adults were accompanied by 50% of the grave goods of the Period. In fact, it is only 18% (15/85 artefacts). Mature adult burials, on the other hand, were accompanied by 75% (64/85 artefacts), not

50%, of the grave goods. I am at a loss to explain the discrepancy in our statistics. There is the possibility that the 42 shell beads found in Burial 123-30 were considered as one necklace by Rathje, rather than 42 beads (by me). However, the individual in this burial was a mature adult, and subsequently the percentage of furnishings could only alter to 34% (15/44 items) for young adults and 52% (23/44 items) for mature adults. Either way, mature adults, not young adults, had the larger percentage of Early Period grave furniture. Moreover, during the Late Period, burials of young adults contained a larger percentage of furniture than suggested, 22% (55/250) as opposed to 10%, and 42% (104/250) as opposed to 80% for mature adults. Indeed, the richest Late Period burial, 1-6, was that of a young, not mature, adult! These percentages vary considerably from Rathje's and it seems that the amounts of furniture in mature and young adult burials for the two periods were very nearly the opposite of what he suggested.

There is a strong possibility that the discrepancy in our statistics may be a result of differences in classifying specific burials into the different periods because of the difficulty in dating them. Given that many burials were vaguely dated to the Tiger Run - Spanish Lookout Transition, or Tiger Run or Spanish Lookout, the whole statistical exercise may be dubious. It makes me wonder whether Rathje placed certain burials in a respective period for statistical convenience and on the basis of pre-conceived ideas. (I have listed the burials in the precise order as suggested by the dating sequence of Willey et al. (1965).)

Thirdly, problems arise with his observations on palace burials. Rathje correctly observed that few palace burials could be dated to the Early Classic. There were none at Uaxactún, and the only definite one from our sample was Burial 177 at Tikal (Table VIII, Appendix I). Why so few Early Classic, palace burials? Could Rathje yet be right that palace com-

plexes were only constructed once an elite entourage had developed at specific centres by the beginning of the Late Classic, when hitherto administrators had held office and residence on a rotational basis eliminating the need for such structures? At the time of writing his article, the available evidence might have suggested that palaces were only beginning to be built from the end of the Early Classic. The early dating and the early sequence of construction of most palaces were/are often not known, especially in conjunction with the dating of accompanying burials. It is also difficult to determine when a palace becomes a palace during the initial phases of construction, or indeed, whether a structure was ever a palace at all. The remains can often be too few, too mixed, or undatable to resolve the situation. Very few structures in our site sample could be positively identified as palaces. These were Structures, B-4, C-4 & C-5, San José, A-V, A-XVIII & B-XIII, Uaxactún, 5D-71, Tikal, A-I, Altar de Sacrificios, A-14, Seibal, and 55, Dzibilchaltun. One might also include the palatial residences of Structures E-14, E-51, E-54, B-3 & B-5, Altun Ha. Apart from Str. 5D-71, none could be described as being palace-like until the end of the Early Classic. Thus, it was hardly surprising that palace complexes seem only to have been constructed at that time.

More thorough excavation has now changed this belief. Excavation at El Mirador has revealed a series of large, stone structures, including palaces, that have been dated to the Late Preclassic (Matheny 1986), and Hammond (1986) has found at least 3 range type structures (palaces) - Str. 1, 17 & 21 - from his excavations at Nohmul dated to the same period. So now we have palaces dated not just to the Early Classic but to the even earlier Preclassic. Since palaces date to the Preclassic, so too, presumably, did the elite entourage who inhabited them.

The pathological evidence on the stature of the burial population of

Table 96: The best furnished housemound, residential and palace burials,
i.e. with 20 or more items

Site	Burial	Grave Type	Grave Context	Age & Sex of Interred	No. of Grave Goods
Barton Ramie	123-30	cist	housemound	adult male	46
	1-6	simple	housemound	young adult	40
	123-22	simple	housemound	youth	55
	147-2	simple	housemound	adult female, adult & child	22
San José	B18	simple	palace	adult	90
Altun Ha	C-18/14	simple	residence	old adult	25
	C-16/17	crypt	residence	adult female + 2 young adults	23
	C-10/11	cist	residence	2 infants	58
	E-14/3	crypt	palatial residence	infant	110
	E-54/9	cist	palatial residence	adult male + infant	179
Altar de Sacrificios	13	simple	residence	old adult male	24
Seibal	1	cist	palace	adult female	24
Piedras Negras	5	tomb	palace	adult male + 2 children	670
	2	crypt	elite residence	young adult	37

Tikal substantiates this. Haviland (1967) discovered that the adult male tomb population had a greater physical stature than the adult males not buried in tombs from the time of Burial 85 onwards, i.e. as of the Cauac phase of the Late Preclassic. Haviland concluded that a hereditary ruling class had developed at Tikal by that time (*ibid.*: 323). Indeed, evidence from Cerros, Uaxactún, Tikal, El Mirador and Lamanai has suggested to Schele and Miller (1986: 107-109) that the form, symbols and rituals of Maya kingship had developed throughout the lowlands by the Late Preclassic. Certainly hieroglyphic decipherment has determined that a ruling lineage was established at Tikal from the time of Jaguar Paw (Burial 22) onwards, i.e. from the beginning of the Early Classic (Coggins 1975: Table 4; Haviland 1967). Ruling lineages are also known for Dos Pilas (Houston and Mathews 1985), Bonampak (Mathews 1980), and Palenque (Robertson 1983). What is more, Carmack's study of the Quiché Maya indicates that the rotational form of leadership (cargo systems) envisaged by Rathje for the Early Classic Maya only developed by the middle of the colonial era when it was no longer possible to support the luxury of a native aristocracy (Carmack 1981: 324). Rotational leadership does not have the antiquity Rathje imagined whereas rule by an aristocratic lineage does.

But there are more burial data which conflict with Rathje's hypothesis. He suggested that palace burials did not show extremes of wealth but a continuum in the range of furniture from rich to poor (Rathje 1970: 364). But with the exception of Burials B18, San José, E-14/3 & E-54/9, Altun Ha, 1, Seibal, and 5, Piedras Negras (Table 96), there were otherwise no abundantly well furnished palace burials. They were only moderately furnished, i.e. 0 - 20 items. And though the 5 best furnished palace burials had more goods than the 9 best furnished housemound burials, including one vaulted residence burial (Table 96), only Burial 5, Piedras Negras, was excessively better furnished (but the building in which it is

Table 97: The approximate date of the best furnished temple, household shrine and ceremonial platform burials, i.e. with 20 or more items

Preclassic		Early Classic		Late Classic		Postclassic	
Site	Burial	Site	Burial	Site	Burial	Site	Burial
Tikal	166, 167, 128 & 85	Holmul	B13, B5, B1, B2 & B6	Mountain Cow	6 & 8	Altar de Sac.	69
Altun Ha	C-13/27	Uaxactún	B2, C1, A29, A31, A22 & A20	Baking Pot	R15 & B5	Toniná	IV-9, IV-7, IV-1
		Tikal	22, 10, 48 & 160	San José	A7		
		Altun Ha	A-5/2, A-1/2, TA-1/1 & TE-1/2	Tikal	195, 132, 23, 24, 190, 116, 196 & 77		
		Dzibilchaltun	612-1	Altun Ha	TA-6/1, TB-4/7, TE-1/3, TB-4/6, E-7/2, E-7/40, TB-4/2, TE-1/1, TB-4/1, TB-4/3, E-7/10 & TB-4/4		
				Dzibilchaltun	6969-1, 38-sub.2 & 38-sub.6		
				Altar de Sac.	128 & 88		
				Palenque	I1, A1, A2, A3 & E2		
				Toniná	IV-4		

located may in fact have been a temple, see p. 68). Otherwise, there really was not much of a disparity in the wealth of burials in the two contexts. The palace burials of San José (Table 64), Uaxactún (Table 68), Altun Ha (Table 74), and Seibal (Table 83) averaged only slightly more artefacts per grave, and those of Altar de Sacrificios averaged fewer goods per grave than housemound burials (Table 80). Any continuum in the range of furniture did not really include very wealthy burials. Assuming that the number of grave goods reflected one's material prosperity and social status during life, these palace burials were not sufficiently better furnished to suggest individuals of as high a social status as suggested by Rathje. They could only have been of a mildly higher status, such as servants, officials and retainers. Indeed, in Palenque the palaces in which Pacal and his dynasty lived have been identified (Robertson 1985), and we know they were not buried there. So where were members of the elite being buried?: temples, household shrines, and in some instances, ceremonial platforms. It is in such structures that interments were found which consistently contained the most furniture (see Table 98).

Rathje actually observed that the richest burials at Uaxactún were primarily located in the Early Classic temple complex of Structure A-V (Rathje 1970: 364). He believed this substantiated his claim that ruling authorities held office by rotation during this period because the rich adults buried in the temple area accounted for the adults who were 'supposedly' missing from the outlying (Barton Ramie) areas (ibid.: 368). The burial data from our sites confirm that many temple, household shrine, and ceremonial platform burials were the best furnished, but not only during the Early Classic (Table 97). They were the richest regardless of date, a fact which Rathje also noted (ibid.: 364). But he does not seem to have fully appreciated the meaning of this fact: the indication of a perma-

**Table 98: The best furnished temple, household shrine and ceremonial platform burials,
i.e. with 20 or more items**

Site	Burial	Grave Type	Grave Context	Age & Sex of Interred	No. of Grave Goods
Mountain Cow	6	tomb	household shrine	?	47
	8	crypt	household shrine	6 mandibles; disturbed	21
Baking Pot	R15	crypt	cere platform	adult	49
	B5	cist	temple	adult	45
San José	A7	simple	cere platform	adult	49
Holmul	B13	simple	temple	2 adults	76
	B5	simple	temple	adult	295
	B1	simple	temple	young adult	30
	B2	simple	temple	adult	27
	B6	simple	temple	adult	61
Uaxactún	B2	crypt	cere platform	2 adult females	534
	C1	crypt	temple	adult male	218
	A29	tomb	temple	adult male	56
	A31	tomb	temple	adult male	61

Table 98: The best furnished temple, household shrine and ceremonial platform burials,
i.e. with 20 or more items

Site	Burial	Grave Type	Grave Context	Age & Sex of Interred	No. of Grave Goods
Uaxactún	A22	tomb	temple	adult male	50
	A20	crypt	temple	adult	118
Tikal	166	tomb	temple	2 adult females	27
	167	tomb	temple	adult male + adult female and child	24
	128	crypt	household shrine	adult female	598
	85	tomb	temple	adult male	32
	22	tomb	temple	2 adult males	21
	10	tomb	temple	adult male + 9?	50
	48	tomb	temple	adult male + 2 young adult males	150
	160	tomb	household shrine	adult male + youth + child	130
	195	tomb	temple	old adult male	31
	132	crypt	household shrine	youth	125
	23	tomb	temple	adult male	29

Table 98: The best furnished temple, household shrine and ceremonial platform burials,
i.e. with 20 or more items

Site	Burial	Grave Type	Grave Context	Age & Sex of Interred	No. of Grave Goods
Tikal	24	tomb	temple	adult male	20
	190	simple	household shrine	youth	95
	116	tomb	temple	old adult male	310
	196	tomb	cere platform	old adult male	62
	77	tomb	temple	adult female	23
Altun Ha	C-13/27	simple	cere platform	adult male	373
	A-5/2	cist	temple	youth	21
	A-1/2	cist	temple	youth	2900
	TA-1/1	tomb	temple	adult male	4900
	TE-1/2	crypt	household shrine	adult male	830
	TA-6/1	crypt	temple	adult	280
	TB-4/7	tomb	temple	adult male	415
	TE-1/3	crypt	household shrine	adult female	655
	TB-4/6	crypt	temple	adult male	375

**Table 98: The best furnished temple, household shrine and ceremonial platform burials,
i.e. with 20 or more items**

Site	Burial	Grave Type	Grave Context	Age & Sex of Interred	No. of Grave Goods
Altun Ha	E-7/2	cist	household shrine	2 adult males + adult	45
	E-7/40	cist	household shrine	adult male + infant	66
	TB-4/2	crypt	temple	adult male	530
	TE-1/1	crypt	household shrine	adult male	510
	TB-4/1	tomb	temple	adult	915
	TB-4/3	crypt	temple	adult	177
	E-7/10	simple	household shrine	youth + infant	25
	TB-4/4	crypt	temple	adult male	51
Dzibilchaltun	612-1	simple	household shrine	adult	37
	6969-1	tomb	household shrine	adult male + adult female + 2 old adult male skulls + ?	160
	38-sub.2	crypt	household shrine	3 children + adult male skull	29
	38-sub.6	cist	household shrine	child	26
	128	crypt	cere platform	adult female	1170+

Table 98: The best furnished temple, household shrine and ceremonial platform burials,
i.e. with 20 or more items

Site	Burial	Grave Type	Grave Context	Age & Sex of Interred	No. of Grave Goods
Altar de Sacrificios	88	simple	cere platform	adult male	75
	69	simple	cere platform	child	30
Palenque	I1	tomb	temple	adult male + 5 adults	930
	A1	crypt	temple	adult female + another ?	150
	A2	crypt	temple	?	150
	A3	tomb	temple	adult female + young adult male	45
	E2	crypt	temple	?	44
Toniná	IV-4	crypt	temple	?	27
	IV-9	crypt	temple	?	106
	IV-7	cist	temple*	adult female	110
	IV-1	tomb	temple*	6 adult female + 2 adult male mandibles only; disturbed	110
*Though these 2 burials are technically located within the temple complex at Toniná, they are not located under pedestal constructions. This is an important distinction discussed in chapter 13, and because of this they are listed as being in plazas in Table XVI, Appendix I.					

nent ruling elite, not rotating officials. These were the structures on which Rathje should have focused his observations and analysis. He admittedly had only about a dozen temple burials in his Uaxactún sample with which to work but the staggering number of grave goods in some of these should have informed him that a hereditary elite, with phenomenal trappings of wealth, were being buried in these temples. Some of this wealth could not have been acquired simply in a single lifetime and much of it, jade and shell collars, carved figurines and mosaic masks, represented supreme and permanent political, religious and economic power.

Epigraphic data now show that some of the richest temple burials at Tikal (Coggins 1975; Morley 1983) and Palenque (Ruz 1973; Robertson 1983) belonged to hereditary rulers (Table 99). Further advances will no doubt establish other burials with specific rulers. An accurate guess could already be made based on the data from Table 99. Adult males placed in tombs and temples would be the first obvious thing to look for. The variation in the amount of grave goods, however, suggests grave furniture is not a good guide to use. But this is misleading. In fact, only 2 burials, Burial 160, Tikal, and 11, Palenque, have very accurate estimates. Burial 22 (Jaguar Paw) was looted and the amount of furniture in the others is rather underestimated. The number of jade and shell beads and discs comprising necklaces, collars, bracelets, etc., was not completely tabulated by the excavators. Neither were the numbers of shell, pearl, flint and other items simply because of their sheer volume. But these are the very artefacts that indicate the presence of a Maya king, even though we may not know the precise number. The presence of codex remains, jade mosaic masks and plaques, stuccoed pottery, stingray spines, and a mass of flint above a grave are also good indicators of a ruler's burial. It is also apparent that the burials of site rulers should be found in a single structure or acropolis area of each site. On this evidence I would suggest the following

Table 99: The burials of the known Maya Rulers

Site	Burial	Grave Type	Burial Location	Ruler	No. of Grave Goods
Tikal	22	tomb	Str. 5D-26, North Acropolis	Jaguar Paw	21
	10	tomb	Temple of Red Stela, North Acropolis	Curl Nose	50
	48	tomb	Str. 5D-33, North Acropolis	Stormy Sky	150
	160	tomb	Str. 7F-30, household shrine	Son of Kan Boar	130
	195	tomb	Str. 5D-32, North Acropolis	Grandson of 160	31
	23	tomb	Str. 5D-33, North Acropolis	Grandson of 195	29
	116	tomb	Temple I	Ruler A: Ah Cacau	310
	196	tomb	Str. 5D-73, Great Plaza	Ruler B: Yax Kin	62
Palenque	11	tomb	Temple of Inscriptions	Pacal	930

adult male burials were of Maya kings:

- 1) Burial 85, a Preclassic burial of the North Acropolis, Tikal;
- 2) Burials A29, A31 & A22 of the Early Classic temple, Str. A-V, Uaxactún;
- 3) Burials TA-1/1, TB-4/7, TB-4/6, TB-4/2 & TB-4/4, Altun Ha. The 3 other burials in Str. B-4 were probably kings but they were not positively identified as adult males.

The wealthy interments of the household shrine, Str. E-1, were probably related to the Altun Ha royal line, just as many of the interred in the household shrine, Str. 7F-30, Tikal, e.g. Burial 160, were related to the Tikal royal line (Coggins 1975: 215-33; Haviland 1981: 105-110).

The presence of wealthy interments who were neither kings nor adult males is another telling point against Rathje. Of the 65 burials in Table 98, the primary interment of at least 10 were adult females, 6 were of youths, and 3 of children. Their presence clearly implies that wealth and status were inherited, not acquired. This is especially emphasized by Burials A-1/2 & TE-1/3, Altun Ha, and Burial 128, Altar de Sacrificios (Table 98). The former is of a youth and the latter two of adult females. The youth is particularly interesting. Some 2900 items of furniture accompanied him. This represents wealth that could not possibly have been accumulated through competitive or rotational leadership at such a young age. Since the three other singly interred youths had only 20 - 125 items of furniture each, this individual, assuming he was male, had probably been destined to inherit the leadership before his untimely death. The murals from Bonampak indicate that the designation of an heir could take place at about the age of six (Miller 1986: 24). Presumably this youth had already been designated as such.

Finally, since these well furnished temple burials are dated from the Preclassic onwards (Table 97), it confirms the epigraphic and other evi-

dence of an hereditary elite by that time. Altogether then, it seems that Rathje's hypothesis is quite untenable and that he really has missed the boat.

CHAPTER ELEVEN

THE EVIDENCE FOR HUMAN SACRIFICE

The Evidence for Human Sacrifice

Recent research on Maya art and iconography has provided compelling evidence that human sacrifice was practised to a considerable extent by the lowland Maya (e.g. Schele 1984; Schele & Miller 1986; and Miller 1986). So far as I am aware no argument has been presented on the basis of skeletal or burial data. We are in a prime position to do so here. It is probably from burials that the best evidence for ritual sacrifice may be found.

Two forms may be inferred. The first, bloodletting, can only be implied indirectly. The indirect evidence consists of stingray spines, imitation stingray spines and obsidian lancets accompanying the interred in the burials (Table 100). These are the sort of implements associated with bloodletting. The accompanying table (Table 100) reveals that 14 burials of known or probable rulers had obsidian lancets or stingray spines, neatly complying with the depictions of bloodletting of such eminent persons. The second form, human sacrifice, has more direct - though not always - evidence from the burial data. Since it is the burial data under analysis here, it is the evidence for human sacrifice on which we shall concentrate. But reference to ethnohistoric literature and ancient Maya art and iconography will also be made in order to help explain the nature of the acts of sacrifice.

The evidence for sacrifice consists primarily, though not exclusively, of skeletal mutilation. Burial location, nature of placement, accompanying furniture (or lack of), combination of bodies, and/or other circumstantial evidence also exist. But no less than 131 burials of the sample (11%) have evidence of one sort or another that suggests the interred were sacrificed, or at least suffered a sudden and unnatural end. This total could be even higher but burials in which missing portions of skeletons are more probably the result of decomposition and/or grave disturbance (see Table 40) are not

Table 100: Burials containing stingray spines, obsidian lancets,
or some other artefact associated with bloodletting

Site	Burial	Type of Bloodletter
Holmul	B16	stingray spine
	B5	inscribed stingray spine
	B1	stingray spine
	B2	stingray spine
Uaxactún	A6	stingray spine
	B2	5 obsidian lancets
	A29**	stingray spine
	A31**	4 obsidian lancets and an obsidian imitation
	A22**	1 red painted stingray spine
	A2	stingray spine
	A23	stingray spine
	A45	2 obsidian lancets
Tikal	164	stingray spine
	166	stingray spine
	128	stingray spine
	85**	stingray spine
	10*	stingray spines
	48*	stingray spines
	160*	stingray spine & 3 imitation
	195*	stingray spine
	140	2 stingray spines
	132	6 stingray spines
	23*	stingray spine
	24	stingray spine
	116*	stingray spines and carved bone imitations

Table 100: Burials containing stingray spines, obsidian lancets,
or some other artefact associated with bloodletting

Site	Burial	Type of Bloodletter
Tikal	196*	2 stingray spines
Altun Ha	TA-1/1**	stingray spines
	TE-1/2	stingray spine
	TB-4/7**	3 stingray spines
	C-16/21	stingray spines
	TB-4/2**	6 stingray spines
	TE-1/1	8 stingray spines
	TB-4/1	2 stingray spines
	E-7/18	2 obsidian lancets
	D-2/1	stingray spine
	E-54/9	2 stingray spines
Altar de Sacrificios	99	stingray spine
	116	stingray spine
	128	stingray spines
Piedras Negras	5	stingray spines
	2	stingray spine
Palenque	C3	stingray spine
Toniná	III-1A,B	stingray spine

* denotes burials of known Maya rulers		
** denotes burials of probable Maya rulers		

considered sacrifices and excluded from the following tables and discussion. Others, in which missing skeletal parts are not clearly a result of decomposition, disturbance, or deliberate mutilation, are considered sacrificial. These are considered as such because of the similarity to other deliberate instances of skeletal mutilation, and/or because of the similarity to sacrificial practices as described in the ethnohistoric literature or depicted in the ancient art. These instances are noted in the tables and discussion. In any case, these 131 burials suggest that not just one but four distinct forms of human sacrifice were apparently practised.

Adult and Child Burials

Multiple interments which consist of a combination of an adult female and child(ren), adult male and child(ren) or a number of adults and child(ren) are the first type in which sacrifice is suspected. There are 35 instances from 9 sites (Table 101). Why is sacrifice suspected?

Firstly, it is believed the interred in these burials were related, and possibly consisted of mother and child, father and child, or parents and children. In the presumed mother-child combinations, many of the children accompanying the adult females were foetuses or very young infants. It is conceivable, therefore, that the mother died while giving birth and the child sacrificed shortly after. But what happened in the other combinations of interred? Adult males and older children certainly did not die in, or as a result of, child birth! Fortunately, though not contemporary, the ethnohistoric literature informs us of what may have happened.

Landa observed among the Yucatan Maya that after the death of both parents, children of slaves, orphans, or the offspring of deceased male relatives and slave women, were sacrificed (Tozzer 1941: 117 & note 535). Some of the burial combinations in Table 101 can be explained by this prac-

Table 101: Adult(s) and child(ren) burials

Site	Burial	Age & Sex
Barton Ramie	123-11	adult female & child
	147-2	2 adults & child
Uaxactún	E15	young adult female & child; adult female's skull crushed by blow
	B1	2 adult females & 3 infants
	A44	adult female & child
Tikal	162	adult female & child
	151	young adult male with 2 children
Altun Ha	C-13/10	adult female & child plus another adult
	D-10/1	old adult female & child
	E-7/30	old adult & child plus another adult
	E-7/40	adult male & child
	E-7/27	adult female & child
	E-7/28	adult male & child
	E-3/2	adult female & child
	E-7/9	old adult & child
	C-22/4	adult & child
	E-54/9	adult male & child
	E-54/2	adult & child
Dzibilchaltun	450-1	old adult male and adult female (both decapitated) & child
	605-5	2 adults & child
	14-1	adult & child in urn
	385-1	adult (face missing & legs defleshed) and child
	57-6	old adult male & child

Table 101: Adult(s) and child(ren) burials

Site	Burial	Age & Sex
Altar de Sacrificios	97	scattered adult female & child
	1	adult & child
	11	young adult female & child
	36	adult female & child
	71	young adult male & child
Seibal	10	young adult female & child
	35	young adult & child
Copan	19	adult & child
	34	adult & child
	5	adult & child
Piedras Negras	5	adult male & 2 children
	3	adult female & child

tice. Those with 2 adults and child(ren) may be the parents who had died accompanied by sacrificed slave children, orphans, or related offspring. The adult male and child(ren) burials may consist of the dead male parent and the sacrificed orphans or offspring. And the adult female(s) and child(ren) may be the female parent with the orphans or offspring. Since Landa did not provide details of who would have been buried with whom, there is a fair bit of supposition here. Nonetheless, the data do fit his description, and therefore, the custom of sacrifice observed by Landa may be of some antiquity. I still contend, however, that a few of the adult female - child interments are of a sacrificed child and mother who died in child birth. In either case, some sort of sacrifice is implied.

Two further points are worth noting. Most of the burials were found in residence platforms but a few were not. Burials E15, Uaxactún, and 11, Altar de Sacrificios, were found in plazas, and Burial C-13/10, Altun Ha, was found in a ceremonial platform. Such areas were open to public display and given that the adult female in Burial E15 was killed by a blow to the skull, could it be that the individuals in these burials were killed in a public ritual rather than a child being sacrificed after the death of its parents? Secondly, the adults in 2 burials seem to have been people of substance and wealth. Burial 5, Piedras Negras, was very well furnished, and Burial 162, Tikal, contained Woman of Tikal, descendent of Stormy Sky, a prominent Tikal Ruler (Coggins 1975: 234-34). On account of the wealth and status of these individuals, could children have been automatically sacrificed in their honour upon their deaths? This is what appears to have happened with the interred of our next category, so these 2 burials could be included in it too. The point is, there could well have been more than one purpose or intention, and more than one custom of sacrifice among these adult-child burials.

Table 102: Primary interments accompanied by (a) sacrificial victim(s)

Site	Burial	Condition of Interred and Burial Location
Uaxactún	B2	2 adult females, one with furniture; Ceremonial Platform B-XI
	A10	adult skull in grave between, and to accompany, contemporary burials, A2, A3 & A4; Ceremonial Platform A-I
Tikal	166	adult female, with furniture, accompanied by decapitated adult female; North Acropolis
	167	adult male, with furniture, accompanied by adult female & infant placed between bowls; North Acropolis
	125	adult male accompanied by individual in flint layers above unfurnished tomb; North Acropolis
	22	2 adult males, one with furniture (Jaguar Paw); North Acropolis
	10	adult male (Curl Nose), with furniture, accompanied by 9+ individuals; Temple of the Red Stela
	48	seated adult male (Stormy Sky), with furniture, accompanied by 2 young adult males; North Acropolis
	107	adult, with furniture, accompanied by 2 other individuals; Household Shrine 4H-4
Altun Ha	160	adult male (Son of Kan Boar), with furniture, accompanied by child & youth; Household Shrine 7F-30
	C-13/5	female youth & young adult male accompanied by 5 secondary adults; ceremonial platform

Table 102: Primary interments accompanied by (a) sacrificial victim(s)

Site	Burial	Condition of Interred and Burial Location
Altun Ha	E-7/2	2 adult males, with furniture, accompanied by secondary adult; household shrine
	E-7/10	youth, with furniture, accompanied by infant; household shrine
	E-7/12	youth, with furniture, accompanied by infant; household shrine
	E-51/2	adult female accompanied by secondary, old adult male; palatial residence
Dzibilchaltun	14-1	adult accompanied by infant in urn; vaulted residence
	6969-1	adult male, with furniture, accompanied by 5 individuals, 2 of which were old adult male severed skulls; household shrine
	38-sub.2	one child, with furniture, accompanied by 2 other children and skull of adult male; household shrine
	1005-2	adult, with furniture, accompanied by 2 secondary adults and youth, one of whose femur had been drilled; vaulted residence
	57-5	faceless adult female, with furniture, accompanied by skull of adult female; vaulted residence
	95-2	old adult male, with furniture, accompanied by young adult male, decapitated adult female and femur of another individual; vaulted residence
Copan	T1	adult, with furniture, accompanied by another individual; plaza
	T6	adult, with furniture, accompanied by 2 other individuals, one being skull only; plaza

Table 102: Primary interments accompanied by (a) sacrificial victim(s)

Site	Burial	Condition of Interred and Burial Location
Piedras Negras	10	cut skull and mandible of a child in tomb niche in otherwise well furnished, but disturbed grave without primary interment; plaza
Palenque	11	adult male (Pacal), with furniture, accompanied by 5 other individuals; Temple of Inscriptions

Primary Interments Accompanied by Sacrificial Victims

The second type of burial in which another form of sacrifice is suspected consists of multiple burials of a primary interred individual accompanied by one or more secondary interred. The secondary interred seem to have been sacrificed on account of the following:

- 1) the grave furniture was placed around the primary interred individual(s);
- 2) the accompanying individuals were placed in urns, or at the extremity of, or outside, the grave;
- 3) the accompanying interred frequently consisted of persons who had been severely mutilated in some way, usually decapitation.

There were 25 such burials from 7 sites (Table 102), and though some may not appear to be as convincing cases of sacrifice as others, especially the Altun Ha examples, they all share some of the characteristics that suggest the practice.

The sort of sacrifice that is implied is the killing of individuals (the secondary interred) in honour of, and for the accompaniment of, individuals of wealth and status who had died (the primary interments with the furniture). This is precisely the custom observed by Zamora of Alta Verapaz: slaves of both sexes belonging to the deceased were killed "so that they would serve him in the next world just as they had served him in this" (Tozzer 1941: note 604, p. 129-30). Some of our examples suggest children were sacrificed as well, e.g. Burials 167 & 160, Tikal, E-7/10 & E-7/12, Altun Ha, 14-1 & 38-sub.2, Dzibilchaltun, and 10, Piedras Negras. But presumably this custom could only have been possible among those wealthy enough to own slaves and/or of sufficient rank to warrant sacrifice upon their death. This is supported by our sample because 15 of the burials were well furnished, i.e. Burials B2, Uaxactún, 166, 167, 22, 10, 48 & 160, Tikal, E-7/2 & E-7/10, Altun Ha, 6969-1, 38-sub.2 & 95-2, Dzibilchaltun, T1, Copan, 10, Piedras Negras, and 11, Palenque; eight were

buried in central zone temples or ceremonial platforms, i.e. Burials B2, Uaxactún, 166, 167, 125, 22, 10 & 48, Tikal, and 11, Palenque; and at least 5 contained the bodies of known rulers, i.e. Burials 22, 10, 48 and 160, Tikal, and 11, Palenque (Table 99). Furthermore, these 25 burials were found at the 7 largest sites of the 16 site sample, Uaxactún, Tikal, Altun Ha, Dzibilchaltun, Copan, Piedras Negras and Palenque, sites where sufficient economic and political activity occurred to create a wealthy, slave-owning class and political elite. The primary interred of some other burials may have had sufficient status to warrant sacrifice upon their deaths, even though they otherwise lacked great material wealth and the right of burial in a temple. The two primary interred youths of Burials E-7/10 & E-7/12, Altun Ha, and the primary interred child of Burial 38-sub.2, Dzibilchaltun, are examples. They had inherited the status but had not yet the control of wealth at the time of death. The remaining interments may be instances of families imitating a practice of the ruling elite.

The fact that there is evidence for this practice is important. There are many examples of sacrifice in Maya art but none specifically referring to victims accompanying a lord or other important persons upon their death. Most depictions are in association with important rites of passage during a lord's life, i.e. accession to the throne, marriage, victory in battle, etc. (Schele & Miller 1986). These burials clearly imply an additional rite of sacrifice as part of the rite of passage at the death of a ruler and other important persons. The rite would presumably have aided passage to the afterlife and acted as food for the gods so they would assist the transfer of power to a new king and ensure the continued existence of society. Ritual sacrifice, then, was practised in honour of a ruler upon his death, as well as during his life.

Table 103: Dedicatory cache burials

Site	Burial	Condition of Interred and Burial Location
Baking Pot	B3	child placed in front of temple altar of Structure A
	B2	adult placed in front of only site stela; plaza
Barton Ramie	124-1	infant in a bowl; housemound
San José	D2	individual in urn, Platform D1; ceremonial platform
	A5	adult & child skulls beneath bowl, Mound A4; temple
	A6	adult skull beneath bowl, Mound A4; temple
	A8	adult skull between bowls, Mound A4; temple
Uaxactún	E10	infant between 2 bowls near Stela 19, in front of stairs of Temple E-II; plaza
	E1	infant between 2 dishes in front of altar, centre room, Temple E-II
	E4	infant in front of altar, centre room, Temple E-II
	E21	old adult between 2 dishes, south of altar, south room, Temple E-I
	E22	skull of child between 2 dishes, in front of altar, Temple E-III
	E23	skull of male youth between 2 dishes, south of altar, Temple E-II
	A27	2 bowls over adult male skull in court between Stela A7 and Str. A-I; plaza

Table 103: Dedicatory cache burials

Site	Burial	Condition of Interred and Burial Location
Uaxactún	A66	infant between 2 bowls, below top of stairs, Str. A-V; temple
Tikal	122	infant between 2 plates, Str. 5D-sub.14; ceremonial platform
	123	adult between 2 plates, Str. 5D-sub.14; ceremonial platform
	126	adult between 2 plates, Str. 5D-sub.14; ceremonial platform
Altun Ha	C-18/11	infant in plate; residence
	C-18/6	infant in bowl; residence
	E-7/25	infant in covered jar; household shrine
Dzibilchaltun	38-sub.7	child in an urn; household shrine
	38-sub.8	2 children in an urn; household shrine
Altar de Sacrificios	101	infant in urn in front of Str. B-II; plaza
Piedras Negras	16	infant between 2 bowls, Str. R-3; temple
	4	adult male beneath axis of ball court; Str. K-6

Dedicatory Cache Burials

The evidence for a third form of human sacrifice comes from burials which closely resemble caches. A cache is a deposit of flint, obsidian, jade, shell or other objects usually placed in a ceramic or stone container which is found under stelae, altars, temple stairs or some sort of structural foundation. The composition and location of a cache suggest that it was intentionally placed and meant as a dedication or votive offering to the building under construction, or the altar or stela being erected.

It seems that there were also burials made with the same purpose. Twenty-six burials from 9 sites have been found which primarily consisted of infants or the skulls of adults placed between, in or under ceramic dishes, and which were deposited in front of, or under, stelae, altars, temple stairs and structural foundations. A few were simply placed in front of an altar or stela, or under a structural foundation without a container, i.e. Burials B3 & B2, Baking Pot, E4, Uaxactún, and 4, Piedras Negras, and some contained additional furniture while others did not. Given the similarity of these burials to caches, they probably had the same purpose as votive offerings, but included human victims. One could argue that since these burials are virtually identical to caches they should be considered as such. With this I agree, but because these are also methods of disposing of the dead they should also be considered as burials. Hence the reason for calling them, dedicatory cache burials.

Evidence of offerings of human victims comes from Classic Maya ceramic vessels. One polychrome vessel (Vessel 18) depicts a scene of a dignitary presenting an offering of a dead child in a basket to an overlord (Robicsek 1981: 21 & 40). And one incensario from the grave of Curl Nose (Burial 10, Tikal) was made in the shape of a dignitary reaching forward with an offering of a human skull in his hands (Coe 1965a: 24). Though pots do not exist as containers in either instance, it is clear human offerings are

depicted. The fact that the offerings consist of a human skull and infant comply well with our examples (Table 103).

Further support for these burials being another form of sacrifice is obtained from the ethnohistoric literature. In reference to the Yucatan Maya, Landa states that the hearts of sacrifice victims were placed between inverted bowls and offered to idols and/or altars (Tozzer 1941: 143 and note 684). The similarity is obvious, but in the more ancient times an entire body or a severed skull was provided. The intent was still the same.

Sacrifice by Mutilation

This is the fourth and final form of human sacrifice I believe to have been practised. Most of the evidence consists of burials in which the interred had been mutilated in some way. There were 45 from 9 sites (Table 104). But there are some problems with the apparent mutilation. Firstly, it is not absolutely certain that mutilation had occurred in some instances. Six headless bodies in Burials R4 & R5, Baking Pot, 605-3, Dzibilchaltun, and 108, 89 & 66, Altar de Sacrificios, were not positively identified as being decapitated. Their headless state may be a result of poor preservation, though only Burial 605-3 showed signs of this. Decapitation is suspected because of the incidence of skull only interments. Obviously decapitation had been occurring to some, but not necessarily to any of these six.

Secondly, a few of the skeletal mutilations may be the result of killing unrelated to sacrifice. This applies to the adult female in Burial B4, Baking Pot, with the obsidian point in her eye, the adult males in Burials 605-6 & 605-2, Dzibilchaltun, with death blows to their skulls, and the dismembered adult male in the refuse pit (Burial 29), Seibal. Each one may have been killed during some sort of conflict. Tourtellot (in press)

Table 104: Sacrifice by mutilation burials

Site	Burial	Condition of Interred and Burial Location
Mountain Cow	8	6 mandibles in disturbed grave, Mound A; household shrine
	12	pile of bones in plaza chultun
	16	4 mandibles in Mound A grave; household shrine
Baking Pot	R4	headless adult, Mound G; ceremonial platform
	R5	headless adult, Mound G; ceremonial platform
	B4	adult female with obsidian point in eyeball, Str. A; temple
	B7	skull & leg bones of adult in urn, front of bench, Str. A; temple
Uaxactún	E12	decapitated adult with femurs removed, Group E Plaza
	E20	secondary adult in Group E Plaza
	E2	decapitated adult female in Temple E-VII
	A5	adult scattered 2 sides of stairs, Str. A-I; ceremonial platform
	A18	skull of young adult female in plaza facing Str. A-V
Altun Ha	C-13/25	secondary adult in ceremonial platform
	C-13/7	decapitated young adult with lower legs removed; ceremonial platform
	C-13/11	5 secondary adults in ceremonial platform

Table 104: Sacrifice by mutilation burials

Site	Burial	Condition of Interred and Burial Location
Altun Ha	C-13/19	youth with skull of adult in ceremonial platform
	C-13/6	4 secondary adults in ceremonial platform
	C-13/16	scattered adult in ceremonial platform
	C-13/22	secondary young adult and possibly another adult in ceremonial platform
	C-13/34	skull of old adult in plaza
	C-13/35	calvarium of adult in ceremonial platform
	E-14/5	skull of adult in palatial residence
Dzibilchaltun	605-6	2 secondary adult males with bones and skulls intentionally broken; residence
	605-3	skull and some other bones of adult male missing; residence
	500-4	dismembered old adult male with severed skull in covered urn; ceremonial platform
	226-5	adult male with longbones intentionally broken; residence
	605-2	adult male with death blow to the right side of skull; residence
	6-1	secondary young adult male in plaza of Temple of the 7 Dolls
	6965-2	adult with holes in longbones; residence
	95-1	lower legs only of 2 young adult males; vaulted residence

Table 104: Sacrifice by mutilation burials

Site	Burial	Condition of Interred and Burial Location
Altar de Sacrificios	108	headless young adult, Str. B-II; temple
	42	adult female in plaza in front of Str. A-II
	56	mandible of young adult male, Str. A-I; palace
	39	secondary old adult female in fire pit, Str. A-I; palace
	120	adult skull in Str. A-II; ceremonial platform
	89	headless young adult male in Str. A-III; ceremonial platform
	66	headless adult female in Str. A-I; palace
	20	adult skull, Mound 2; house platform
	92	old adult male with femurs intentionally broken, Str. A-III; ceremonial platform
	49	skull of adult male in Str. A-II; ceremonial platform
	85	skull of old adult male in Str. A-II; ceremonial platform
Seibal	29	dismembered adult male in refuse pit
	4	12 individuals, presumably a ball team, buried in Str. A-13, a ceremonial platform; at least 10 were adult males and all but one were severed skulls only
Copan	7-46	adult male with lower legs severed, West Court Plaza
Toniná	IV-1B,C	9 adult mandibles (6 of them female) in plaza

argues persuasively that this is what happened to the adult male in Burial 29, Seibal.

Thirdly, the two interred with holes in longbones in Burial 6965-2, Dzibilchaltun, and broken femurs in Burial 92, Altar de Sacrificios, are mutilations that might have occurred after death and unrelated to sacrifice. One could even argue that the secondary interments and the burials with only mandibles may not be a result of sacrifice either. Perhaps only the skull interments could be considered as victims of sacrifice. Given these ambiguities, why have I listed these burials as evidence for sacrifice? On account of the fact that together the condition of many of the skeletons is similar: headless bodies, bodies without femurs or lower legs, skulls without bodies, legs without bodies, and secondary interments of dumped or scattered individuals. Furthermore, most of the individuals were adult males, most were buried in temple courts, plazas, and ceremonial platforms, and with 2 exceptions, Burials 8, Mountain Cow, and IV-1B,C, Toniná, each contained little or no grave goods. The apparent similarities suggest that these people suffered similar fates: death by sacrifice. The burials with skeletal mutilation that may result from violent death unrelated to sacrifice, e.g. Burials B4, Baking Pot, and 29, Seibal, or post-burial mutilation, i.e. Burials 6965-2, Dzibilchaltun, and 92, Altar de Sacrificios, I include as cases that are interesting. In any case, consultation with the ethnohistoric literature and ancient Maya art and iconography provide descriptions and depictions that explain the state of most of the bodies in these burials, and the burial locations as a result of public sacrifice.

From a description of the Yucatan Maya, Landa reports that

If the heart of the victim was to be taken out, they led him with a great show and company of people into the court of the temple, and they brought him up to the round altar, which was the place of sacrifice, and placed [him] on his back

upon the stone altar. At this came the executioner, the Nacom, with a knife of stone, and struck him with great skill and he at once plunged his hand in there and seized the heart out alive and, placed it upon a plate, Sometimes they made this sacrifice on the stone and high altar of the temple, and threw the body, now dead, rolling down the steps (Tozzer 1941: 118-19).

He goes on to say that "the custom was usually to bury in the court of the temple those whom they had sacrificed" (*ibid.*: 120), and "if the victims were slaves captured in war their master took their bones, to use them as a trophy in their dances as tokens of victory" (*ibid.*). Finally,

After the victory they took the jaws off the dead bodies and with the flesh cleaned off, they put them on their arms and if they made a prisoner of some distinguished man, they sacrificed him immediately (*ibid.*: 123).

The ancient Maya art is equally explicit. Heart excision is visible on Stelae 11 and 14 of Piedras Negras (Schele 1984: 8) and also depicted in a scene on a polychrome vase (Coe 1982: 16-17). Decapitation is shown on Piers b and f, of House D in the palace complex of Palenque (Schele 1984: 9). Eleven of the thirteen steps of Str. 33, Yaxchilan, feature scenes of a man whose neck is broken, snapped back; and the body then hurled down the steps (Schele & Miller 1986: 249). Decapitation scenes are found on polychrome vessels as well. On one (Vase 42), a captive is about to be beheaded in a public display (Coe 1973: 90-93), and on another (Vase 46) three death gods approach a pedestal bearing the severed head of a young man (*ibid.*: 100-101). Another vessel (Vase 33) portrays an unfortunate victim in the process of being publicly disembowelled (*ibid.*: 76-77), while a Jaina figurine has been moulded to depict a bound and disembowelled captive (Schele & Miller 1986: 228 & Plate 94).

The most explicit and complete record of human sacrifice comes from the painted murals in Str. 1, Bonampak. The murals depict a raid for captives, captives shown undergoing some judgement ritual which includes torture and one decapitation, and a culmination with a mass dance on a pyramidal

façade and captives being thrown down the terraces to their death (Schele 1984: 11; Miller 1986). Indeed, in one scene from Room 2, Miller states

Beneath these 3 captives on the step sit some poorly articulated body parts. A severed head rests on a bed of leaves, unbloodied and tidy. To its left may be other parts of the body, perhaps a pair of legs. This gruesome dismemberment may be reflected in Maya tombs, (Miller 1986: 124).

Some of our burials certainly do reflect such gruesome dismemberment, e.g. Burials El2, Uaxactún, C-13/7, Altun Ha, 95-1, Dzibilchaltun, and 7-46, Copan, for leg removal; C-13/34, C-13/35 & E-14/5, Altun Ha, and 120, 49 and 85, Altar de Sacrificios, for skull removal; and 12, Mountain Cow, B7, Baking Pot, A5, Uaxactún, C-13/16, Altun Ha, and possibly 29, Seibal, for general disarticulation and dismemberment. Finally, Schele & Miller (1986: note 61, p.61) regard the iconographic depiction of bleeding victims with a hand gripping the lower jaw as one method of sacrifice involving the removal of the jaw of a living victim. The mandible only burials seem to confirm this, e.g. Burials 8 & 16, Mountain Cow, 56, Altar de Sacrificios, and IV-1B,C, Toniná, and Landa's description suggests the custom persisted for some time. (I am rather surprised that Burials 8 and IV-1B,C were so well furnished. It is not typical and I would have expected victims to have had their jaws removed in such a fashion not to have received well furnished graves. The fact that the graves were disturbed makes them questionable examples.)

Thus, the ancient depictions and Landa's descriptions are remarkably similar, and most of the 45 burials display the results of what is described, both in the actual mutilation and burial location, i.e. disarticulated or dismembered victims scattered around courts and plazas of temples and ceremonial platforms. But our sample also includes a number of victims buried in residences, i.e. Burials E-14/5, Altun Ha, 605-6, 605-3, 605-2, 226-5, 6965-2 & 95-1, Dzibilchaltun, and 20, Altar de Sacrificios; mutilated

females, i.e. Burials B4, Baking Pot, E2 & A18, Uaxactún, and 42, 39 & 66, Altar de Sacrificios; and a sacrificed ball team in Burial 4, Seibal (Tourtellot: in press). The data not only confirm the depictions and literature of public sacrifice, but reveal that death by sacrifice was conducted privately in residences, and did include the sacrifice of ball teams and females.

Summary

Evidence from some Maya burials have been shown to imply the custom of human sacrifice. Using this evidence in conjunction with ancient Maya art and iconography, and the ethnographic literature, illustrates what these practices actually were. In fact, 4 customs are apparent. These are:

- 1) the sacrifice of orphans and offspring of slaves to accompany dead parents,
- 2) the sacrifice of slaves at the death of their masters in honour of them and in order to ensure that they continue to work for their masters in the afterlife,
- 3) the sacrifice of individuals who are placed or buried like a cache to act as a votive offering for a building construction, or stela or altar erection, and
- 4) the public sacrifice of prisoners of war and others, and the deliberate mutilation of many of them in order to retain skulls, femurs, and mandibles as trophies.

CHAPTER TWELVE

ANCESTOR WORSHIP

Ancestor Worship

We have seen that the ancient Maya buried their dead in just about every conceivable type of structure and location. They do not appear to have resorted to placing their dead in any necropolis or cemetery, though one may yet be found. (Jaina may yet prove to be hallowed ground but so far as I can tell all Jaina burials had been placed in buildings of some kind or another (Moedano 1946; Pina Chan 1948).) Consequently, the burial of the dead may appear only to have been a haphazard custom conducted in a place of convenience or in the most convenient fashion. In fact, such a thought could not be further from the truth. There is a pattern to the burial of the ancient Maya dead, and certain structures were built with the specific purpose of containing and honouring some, though not all, of the deceased. Moreover, a number of customs associated with interment was adopted as a means of veneration and worship.

Building Renovation or Construction and Associated Burials

Virtually all burials found had been covered over in some way. The only exceptions to this rule were a number of interments consisting of individuals who had been discarded on middens, i.e. PD 50 & PD 74, Tikal, Burial 29, Seibal, and 97, Altar de Sacrificios, and four Postclassic burials that were made some time after the buildings were abandoned, i.e. Burials E-7/46, C-43/1, A-8/2 & A-8/3, Altun Ha. All other burials had been covered over either by being placed below ground or covered over in a building. Most burials in our sample were simply made during building renovation, alteration or expansion. This applies to all the simple, unlined burials of housemounds and other residential type buildings. But if someone died when such alterations had not occurred, a pit would be dug beneath the house or associated structure, perhaps a formal walled grave

would be attempted and the deceased would be placed in it. The grave would then be covered by a new floor, platform, wall, or even a reconstruction of the house or building. Only then would the place become habitable again. But in no way was any construction made to commemorate the deceased. The vast majority of burials fit these descriptions. But there were some other burials which received much greater attention, and therefore imply that something much more was involved.

Household Shrines

The excavation of several residential group plazas at Tikal has revealed the existence of buildings on these plazas' eastern edges which were different from the other residential platforms. The arrangement has been called 'Plaza Plan B' by Becker (1971 & 1986). On the basis of an analysis of architecture, burials, artefacts and caches, these structures were found to have the following characteristics (Becker 1986; Haviland 1981; Coggins 1975; and see Fig. 2):

- 1) location on the east side of residential plazas,
- 2) more elaborate architecture, usually of a high and square shape like small temples,
- 3) better furnished graves,
- 4) apparently purpose built to house the burials.

The function(s) of these structures has been determined as ceremonial and they have been called temples (Haviland 1981: 100), or ceremonial eastern structures (Coggins 1975: 421 & 435). Structures with the same characteristics were encountered at other sites, e.g. Str. 38-sub., Dzibilchaltun (Andrews & Andrews 1980), and Str. A-30e, 26d & C-33d, Seibal (Tourtellot in press). Andrews and Andrews (1980) called Str. 38-sub. a shrine, and

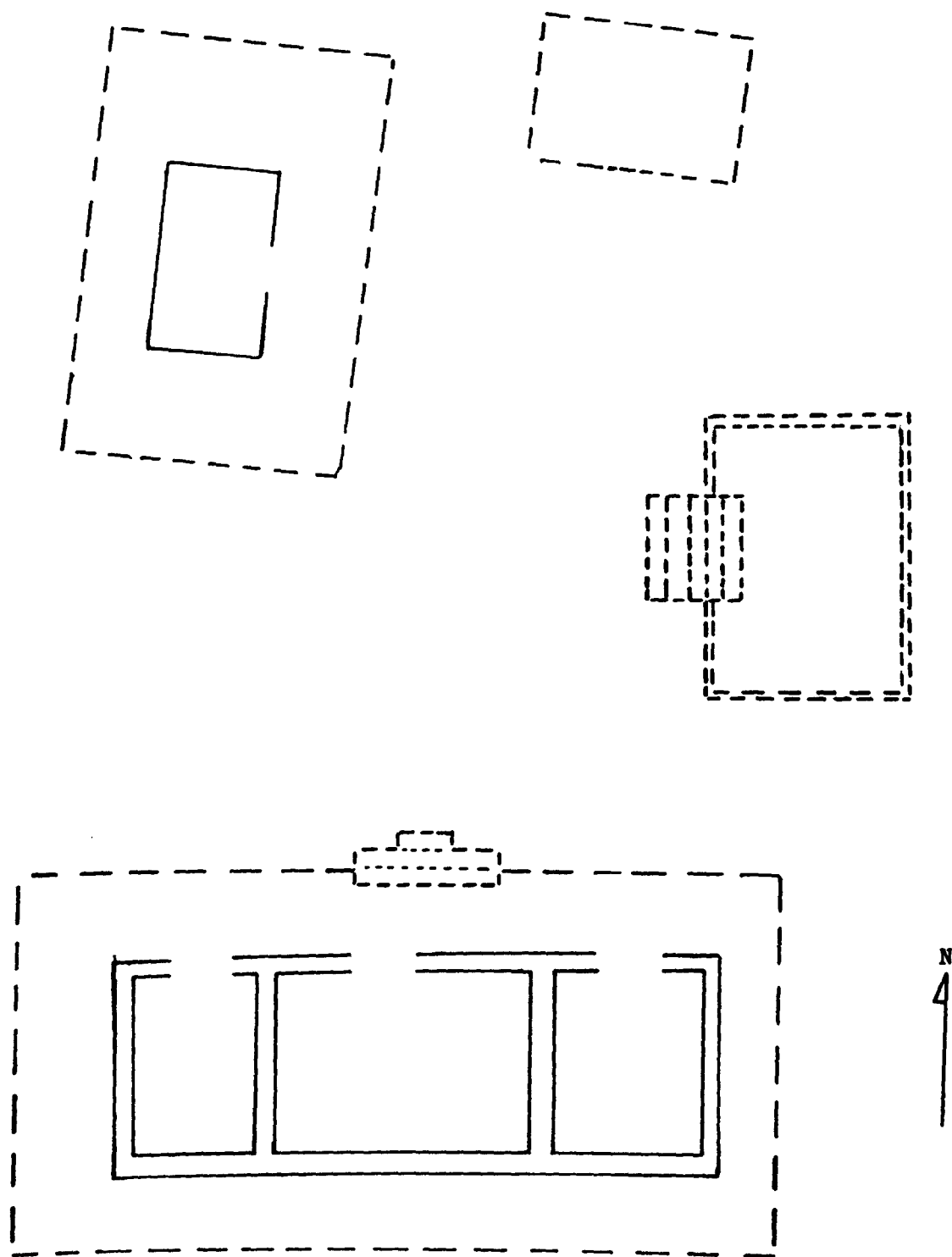
Table 105: The household shrines located on the eastern perimeter of residential plazas

Site	Household Shrine	Burials
Mountain Cow	Mound A, Plaza II	6, 7, 8 & 13
	East mound, Plaza XII	9 & 14
	Mound A, Plaza I	16
Benque Viejo	Str. B-1	B1, B2 & B3
Tikal	Str. 4H-4	107, 101, 94, 96, 88, 89, 90, 105, 91 & 97
	Str. 7F-30	160, 134, 140, 132, 194, 150, 190, 191, 4 & 1
	Str. 7F-31	159 & 193
	Str. 2G-59	57, 54, 58, 49, 50, 52, 56, 59, 60, 53 & 55
	Str. 5G-8	72
	Str. 5G-11	80 & 75
	Str. 4G-9	81
	Str. 3F-27	70
	Str. 6B-9	157 & 147
Holmul	Str. F, Group I	1F1
Dzibilchaltun	Str. 6969	6969-1

Table 105: The household shrines located on the eastern perimeter of residential plazas

Site	Household Shrine	Burials
Dzibilchaltun	Str. 612	612-1, 612-2 & 612-3
	Str. 38-sub.	38-sub.7, 38-sub.8, 38-sub.1, 38-sub.2, 38-sub.5, 38-sub.6, 38-9, 38-3 & 38-4
Seibal	Str. 26d	13 & 14
	Str. C-33d	21

Figure 2: Typical residential plaza with 'household shrine' on the eastern perimeter



Tourtellot (in press) called the Seibal structures, Class-C altar shrines. Such a variety of terms for structures that were effectively the same seems unnecessarily cumbersome. They are simply called 'household shrines' in this dissertation for the following reasons:

- 1) in order to emphasize their residential association,
- 2) to distinguish them from the more elaborate, centrally located, temples,
- 3) to simplify terminology,
- 4) to infer an association with ancestor veneration which will become apparent below.

Household shrines were first found at Tikal but they are by no means confined to that site (see Table 105). The examples at Mountain Cow conform well to the general pattern. Thompson (1931: 237) described them as buildings of high and square shape located on the eastern edge of residential plazas. The burials were also well furnished (Table I, Appendix I). Str. B-1, Benque Viejo, is shown to have been the eastern building of a residential plaza (Thompson 1940: Fig. 1) which contained the burials. The same applies to Str. F, Group I, Holmul (Merwin & Vaillant 1932: 15 & Fig. 1). As for the Dzibilchaltun examples, Str. 38-sub. was already considered some sort of shrine of high and square shape by the excavators (Andrews & Andrews 1980: Figs. 171, 173 & 175), and it was also placed on the eastern edge of the plaza housing some relatively well furnished burials (Table 98 & Table X, Appendix I). Structure 6969 was considered a temple by the excavators but since it was on the eastern perimeter of a residential plaza (ibid.: 265ff & Fig. 253) it is considered a household shrine here. Structure 612, which was not mapped, is presented as being on a residential plaza's eastern perimeter (ibid.: Fig. 76) and so it too is considered a household shrine. The final examples from Seibal have simply been renamed.

Many of these structures share another important feature: the

buildings actually appear to have been primarily built as commemorations to particular interments, e.g. Str. 7F-30 to Burial 160 (Coggins 1975: 215; Haviland 1981: 105), Str. 5G-8 to Burial 72 (Coggins 1975: 329), and Str. 7F-31 to Burial 159 (*ibid.*: 325). Alternately, an altar, bench, or some other construction was built over a burial as a commemoration to the deceased in, or by, the household shrine. For example, an altar was erected over Burial 14, Str. 26d, Seibal (Tourtellot: *in press*), benches built over Burial B2, Str. B-1, Benque Viejo (Thompson 1940: 27), and Burials 612-3 and 38-sub.5, Dzibilchaltun (Andrews & Andrews 1980: 81 & 167), and, except for Burials 4 & 194, special constructions were built over every burial in Str. 7F-30, Tikal (Haviland 1981: 94). A special construction was erected over Burial 193 in Str. 7F-31, Tikal, as well (*ibid.*) and a special extension of Str. 3F-27 was made over Burial 70 (Haviland, *in press*: to appear in Tikal Reports, no. 20). In addition, Str. 612, Dzibilchaltun, may have been erected as a commemoration to Burial 612-1 because the burial was set in place just prior to, or during, building construction (Andrews & Andrews 1980: 79), and Str. 6969, Dzibilchaltun, may be a memorial to Burial 6969-1 since the tomb and the stairs leading down to it could only have been made during the building's construction (*ibid.*: 265). Finally, Str. 4H-4, Tikal, may have been built as a memorial to Burial 107, and subsequent constructions to Burials 101, 94, 105 & 97, because all of them were placed on the main axis of the building (Coggins 1975: 211, 433 & 435, respectively). This was a feature of many household shrine burials, particularly in Str. 7F-30 and 31 (Haviland 1981: Figs. 5.2-5.5). Since most burials in these 2 buildings had some sort of memorial to them, the same may apply to the Str. 4H-4 burials. For the remaining household shrines and their burials listed in Table 105, i.e. the Mountain Cow shrines, Str. 2G-59, 5G-11, 4G-9 & 6B-9, Tikal, C-33d, Seibal, and Str. F, Group I, Holmul, either commemorative construction did not apparently occur or

Table 106: The household shrines with an uncertain or non-eastern location

Site	Household Shrine	Location	Burials
Mountain Cow	Mound N, Group II	west or south or ?	17
	Mound M, Group II	north or east or ?	18
Holmul	Str. X	?	X1, X2 & X3
Tikal	Str. 6E-sub.1	west	128
Altun Ha	Str. E-1	?	TE-1/2, TE-1/3 & TE-1/1
	Str. E-7	?	total of 46 burials and listed with the E-7 appellation in Table IX, Appendix I
	Str. C-6	east or south or ?	C-6/1, C-6/2, C-6/3 & C-6/4
Seibal	Str. A-30e	centre	34, 35 & 33
	Str. 4E-10	?	36, 37, 40, 44 & 45

information to verify an association was not available. I should not be surprised if such an association occurred, however.

Seven other structures have also been listed as household shrines even though they were not located on the eastern perimeter of a plaza (Table 106). I do so for the following reasons:

- 1) Mounds M & N of Mountain Cow (Hatzcap Ceel, in fact) were described as being purpose built to house the graves (Thompson 1931: 256-57);
- 2) Str. X, Holmul, was thought to have been specially sealed for burials (Merwin & Vaillant 1932: 50-53);
- 3) Str. E-7, Altun Ha, had little refuse and was considered a special purpose building (Pendergast: in press);
- 4) Str. A-30e & 4E-10, Seibal were considered Class-C altar shrine and temple, respectively, by Tourtellot (in press), which effectively had the same purpose as household shrines;
- 5) Str. 6E-sub.1, Tikal, was built as a memorial to Burial 128 (Haviland, in press: to appear in Tikal Reports no. 20);
- 6) Str. E-1 and Unit 1 were rather unusual and seem to have been purposely built to house the well furnished burials of TE-1/2, TE-1/3 & TE-1/1 (Pendergast: in press).

The similarity with household shrines located on the eastern perimeter of residential plazas is obvious and thus, they are included in the same classification.

This discussion should explain the use of the term 'household shrine' for these structures. They were adjacent to the household groups of plaza dwellings and their primary purpose seems to have been to house most of the burials of the respective communities living around each plaza. Though burials may be found in the adjacent residences, the better furnished ones are certainly found in the household shrines (see chapters 9 & 10 above). It has even been argued that these plazas or courtyard groups had been

Table 107: Temple and ceremonial platform burials

Site	Temple or Ceremonial Platform	Location	Burials
Baking Pot	Str. A, Group II	east	B4, B5, B1, B3, B6 & B7
	Mound G, Plaza III, Group I	north	R1 - R15
San José	Mound A4	east	A1, A5, A6 & A8
	Platform D1	centre (?)	D1, D2 & D3
Holmul	Str. B, Group I	north	B21, B20, B17, B16, B15, B3, B13, B5, B1, B2, B6, B10, B9 & B22
Uaxactún	Str. E-I	east	E21
	Str. E-II	east	E1, E4 & E23
	Str. E-III	east	E22
	Str. E-X	east or north	E5
	Str. E-VII	west	E2
	Str. E-V	south	E6
	Str. A-V	east or centre	A59, A66, A29, A39, A31, A22, A20 & A23
	Str. A-XV	south	A75, A14 & A15
	Str. A-I	south	A9, A6, A5, A2, A3, A4 & A10

Table 107: Temple and ceremonial platform burials

Site	Temple or Ceremonial Platform	Location	Burials
Uaxactún	Str. A-II	west	A74
	Str. B-VIII	south	B1
	Str. B-XI	west	B2
	Str. C-I	northeast	C1
Tikal	Str. 5D-sub.14	north	122, 123 & 126
	Str. 5D-sub.11	north	166
	Str. 5D-sub.10	north	167
	North Acropolis	north	121, 164
	Str. 5D-sub.2	north	85
	Str. 5D-22	north	125, 200
	Str. 5D-26	north	22
	Str. 5D-34	north	10
	Str. 5D-33	north	48, 23 & 24
	Str. 5D-32	north	195
	Str. 5D-73	south	196

Table 107: Temple and ceremonial platform burials

Site	Temple or Ceremonial Platform	Location	Burials
Tikal	Str. 5D-11	west	77
	Temple I	east	116, 6 & 5
Altun Ha	Str. A-5	east	A-5/2 & A-5/1
	Str. B-4	east	TB-4/7, TB-4/6, TB-4/2, TB-4/1, TB-4/5, TB-4/3 and TB-4/4
	Str. A-8	west	9 burials under the A-8 appellation in Table IX, Appendix I
	Str. A-I	west	A-1/2, A-1/3, TA-1/1 & A-1/1
	Str. A-6	north	TA-6/1
	Str. A-3	south	A-3/1
	Str. B-6	south	B-6/1
	Str. C-13	?	all burials under the C-13 appellation except C-13/34
Dzibilchaltun	Str. 6	west	6-1
	Str. 12	centre	12-1
	Str. 500	?	500-4

Table 107: Temple and ceremonial platform burials

Site	Temple or Ceremonial Platform	Location	Burials
Dzibilchaltun	Str. 450	north	450-1 & 450-2
Altar de Sacrificios	Str. A-II	west	111, 120, 121, 49 & 85
	Str. A-III	east	98, 96, 128, 3, 4, 5, 88, 89, 68, 74, 75, 77, 81, 83, 84, 86, 90, 94, 95, 67, 69, 70, 71, 76 & 92
	Str. B-I	south	127, 53 & 65
	Str. B-II	west	124, 125, 129, 108, 110 & 119
	Str. B-III	north	105 & 99
	Str. C-I	east	126
Piedras Negras	Str. R3	west	16, 8 & 9
	Str. R2	west	7
Palenque	Temple of Inscriptions	south	I1
	Temple of the Count	west	C1, C2 & C3
	Str. XVIII-A	east	A1, A2, A4 & A3
	Str. XVIII	east	E1, E2, E3, E4 & E5

Table 107: Temple and ceremonial platform burials

Site	Temple or Ceremonial Platform	Location	Burials
Toniná	Str. E5-13	north	IV-6
	Str. E5-10	north	IV-2
	Str. E5-15	north	IV-5 & IV-4
	Str. E5-8	north	IV-9 & IV-8
	Str. D5-1	north (?)	I-1

occupied by extended families or lineage groups (Hammond 1982: 167), and Haviland (n.d.) has argued persuasively that the interred of Str. 2G-59 of Group 2G-1, Tikal, were all related, as were the interred of Str. 7F-30 and 31 of Group 7F-1, Tikal (Haviland 1981). Proving that the interred were related or that the plazas were occupied by extended families is no easy matter and not attempted here. But the household shrines were probably used to bury the more important members of each residential plaza regardless of their relationship. The altars, benches - altars of sorts too? - and special platforms would be suitable for conducting rituals to the individuals important enough to be buried in them. The buildings would then become identified with the burials and the dead ancestors of those buried (see below).

Temples and Ceremonial Platforms

Household shrine commemorations pale in comparison with the structural memorials to the dead in the ceremonial precincts. We have already seen that the richest and most significant burials were placed in the centrally located temples and ceremonial platforms of the big sites (see Table 97 or 98). Like household shrines, many temples were located on the eastern perimeter of the central plazas (Table 107). More important, however, are the impressive constructions associated with the burials. There are 3 types.

1) The most profound type of construction was for an entire temple to be erected over a grave in honour of the deceased. There were 12 such examples (Table 108): Str. B-VIII over Burial B1, Uaxactún (Smith 1950: 101 and 52); Str. 5D-sub.11 over Burial 166 (Coe 1965: 1412), Str. 5D-sub.10 over Burial 167 (ibid.), Str. 5D-sub.2-2nd over Burial 85 (Coe & McGinn 1963: 29-30), Str. 5D-26 over Burial 22 (Coggins 1975: 123), Temple of the

Table 108: Burials commemorated with a temple or ceremonial platform

Site	Temple or Cere Platform	Burial	Name of Individual, if Known
Uaxactún	Str. B-VIII	B1	
Tikal	Str. 5D-sub.11	166	
	Str. 5D-sub.10	167	
	Str. 5D-sub.2	85	
	Str. 5D-26	22	Jaguar Paw
	Str. 5D-34	10	Curl Nose
	Temple I	116	Ruler A: Ah Cacau
	Str. 5D-73	196	Ruler B: Yax Kin
	Str. 5D-11	77	
Altun Ha	Str. A-1	A-1/2	
	Str. A-5	A-5/2	
Palenque	Temple of Inscriptions	I1	Pacal

Red Stela (Str. 5D-34) over Burial 10 (Coe 1965a: 27-29), Temple 1 over Burial 116 (Coggins 1975: 456), Str. 5D-73 (ceremonial platform) over Burial 196 (ibid.: 552), and Str. 5D-11 over Burial 77 (ibid.: 585), all of Tikal; Str. A-1 over Burial A-1/2 (Pendergast 1979: 48), and Str. A-5 over Burial A-5/2, Altun Ha (ibid.: 168); and the Temple of Inscriptions over Pacal's grave, Il, Palenque (Ruz 1973).

2) The second form of construction was for a platform, altar block, stair block, pedestal, etc., to be erected over a grave placed in an already existing temple or ceremonial platform (Table 109). The examples are: the altar block over Burial A6, Str. A-I (Smith 1937: 211-214), a sunken enclosure to contain Burials A2, A3, A4 & A10 in the same structure (ibid.), Construction F built over Burial A29, Str. A-V (Smith 1950: 23 & 97), Construction G over Burial A31, same structure (ibid.: 24 & 97), Construction H over Burial A22, same structure (ibid.: 24-5 & 96), Construction I over Burial A20, same structure (ibid.), and Construction V over Burial A23, same structure (ibid.: 26 & 96), all of Uaxactún; the stairway of 5D-33 over Burial 48 (Coggins 1975: 187) and 5D-33-1st over Burials 23 & 24 (ibid.: 387), all of Tikal; a stair block or platform built over all 7 of the Str. B-4 burials (Pendergast 1982: 54ff), Platform 5 over Burial TA-1/1 (Pendergast 1979: 81), Stair 2 over Burial A-1/3 (ibid.: 48), Stair 5 over Burial A-3/1 (ibid.: 154), and a stair block over Burial TA-6/1 (ibid.: 175), all of Altun Ha; Stair 2 and Altar P18 over Burial 128, Str. A-III (ceremonial platform), Altar de Sacrificios (Smith 1972: 57 & 60); and the Toniná pedestals over their burials, E5-13 over IV-6, E5-10 over IV-2, E5-15 over IV-4 & IV-5, and E5-8 over IV-9 (Becquelin & Baudéz 1979: 77). Since many of these burials were located on the axis of the construction or of the temple itself, e.g. Burials 48 & 23, Tikal, A-5/2, A-1/2, TA-1/1, TA-6/1, TB-4/7, TB-4/6, TB-4/2, TB-4/1, TB-4/5 and TB-4/3, Altun Ha, it further emphasizes these constructions as memorials to the interments.

Table 109: Temple burials with a structural memorial

Site	Temple	Construction	Burials
Uaxactún	Str. A-I	altar block	A6
	Str. A-I	sunken enclosure	A2, A3, A4 & A10
	Str. A-V	Construction F	A29
	Str. A-V	Construction G	A31
	Str. A-V	Construction H	A22
	Str. A-V	Construction I	A20
	Str. A-V	Construction V	A23
Tikal	Str. 5D-33	stairway	48 (Stormy Sky)
	Str. 5D-33-1st	platform	23 & 24
Altun Ha	Str. B-4	platform or stair block	all 7 'T' burials
	Str. A-1	Platform 5	TA-1/1
	Str. A-1	Stair 2	A-1/3
	Str. A-3	Stair 5	A-3/1
	Str. A-6	stair block	TA-6/1

Table 109: Temple burials with a structural memorial

Site	Temple	Construction	Burials
Altar de Sacrificios	Ceremonial Platform A-III	Stair 2 & Altar P18	128
Toniná	Str. E5-13	pedestal	IV-6
	Str. E5-10	pedestal	IV-2
	Str. E5-15	pedestal	IV-4 & IV-5
	Str. E5-8	pedestal	IV-9

3) The third form of construction consisted of the conversion of a building, Str. B, Group II, Holmul, to a burial mound (Merwin & Vaillant 1932: 18-20). This was rather similar to the conversion of Str. 4E-10, a household shrine, at Seibal (Tourtellot, in press). Although no structure was made to commemorate the burials per se, the whole building became a memorial by its new role and purpose.

An additional form of structural association existed with the burials in the Group E Temples, Uaxactún, Str. 5D-14, Tikal and Mound A4, San José (see Tables 103 and 107). But the mutilated condition of many of the skeletons, their placement in bowls and the fact that the graves were made after the erection of the altars argues that these burials consisted of individuals who were sacrificed as dedications to the altars or temples (see commentary on dedicatory cache burials). The constructions in these instances were in no way commemorations. It is therefore a very different form of structural association.

Now what precisely is the significance of these memorials that were made in honour of specific interments? I believe there are several clues. The first is the constructions themselves.

The constructions over the temple burials seem to have become the *raison d'être* of the temples' existence, more significant than their ceremonial use though possibly connected to it. They were designed and built for royal interment. That these individuals were important is substantiated by the labour investment needed to build the mausoleum and the wealth in quantity and quality of grave goods with several burials. Thirty-eight of the sixty-five richest burials had some sort of memorial over the graves, nine contained individuals accompanied by sacrificial victims, and all nine known burials of rulers had constructions built over their graves (compare Tables 98, 99 & 102 with Tables 108, 109 and the discussion of the household shrine memorials). These were individuals of significant wealth and social

Table 110: Bench burials

Site	Structure	Structure Type	Burials
Baking Pot	Str. A, Group II	temple	B6 & B7
Benque Viejo	Str. B-1	household shrine	B2
San José	Str. C4	palace	C8 & C9
	Str. C5	palace	C7
Uaxactún	Str. A-V	palace	A38, A32, A40, A11, A48, A57, A43, A45, A17, A64, A52, A44 & A34
Altun Ha	Str. C-10	residence	C-10/6, C-10/8, C-10/3, C-10/4, C-10/5, C-10/7 & C-10/2
	Str. E-14	palatial residence	E-14/5, E-14/8, E-14/9, E-14/2, E-14/4 & E-14/1
	Str. A-8	temple	A-8/5
	Str. E-7	household shrine	E-7/25
Dzibilchaltun	Str. 13	vaulted residence	13-1
	Str. 38-sub.	household shrine	38-sub.5
	Str. 3558	vaulted residence	3558-1

status. (It should be noted this includes the two youth burials, A-5/2 and A-1/2.) The fact that the constructions were made at the time of their deaths implies that their deaths and not just their status were important. This is also suggested by the second clue.

It consists of carbon and ash remains left on the surface of some of the overlaying grave constructions. A ritual of some kind must have occurred once the construction was complete and/or at certain periods thereafter. Presumably copal, incense and some other materials were burned during a ritual honouring the deceased. Such evidence was found with Burials TB-4/7, TB-4/6, TB-4/1, A-1/3 and A-3/1, Altun Ha. This is rather limited evidence but the evidence for it elsewhere may have been overlooked.

There was considerable evidence for carbon and ash remains over many burials in Str. C-13, Altun Ha, a Preclassic ceremonial platform. But because there were no constructions placed over the burials in this platform and many contained mutilated skeletons who had obviously been sacrificed (as exist with some ceremonial platform burials at other sites - see Table 104), the rituals and burials may have been acts or rites consecrating events or burials made elsewhere.

The third clue consists of a number of burials that had been covered over by benches (Table 110). Some were located in household shrines and temples, but most were in palaces and residences. The fact that 31/37 bench burials were in residential structures may be most revealing. Benches may be the sort of constructions that commemorated the dead in residences. Since they could easily double for altars, benches may at times have been used for conducting the same rituals to the dead as occurred at household shrines, temples and ceremonial platforms.

This practice is known from the Postclassic period. Several burials were found in benches/altars at Mayapan (Pollock et al. 1962: 246-51) and Santa Rita Corozal (Chase 1985: 114). Some benches doubled as altars.

Table 111: Burials with the removal of face or skull

Site	Burial	Condition of Interred and Location of Burial
Uaxactún	C1	adult male with facial bones removed and mosaic mask placed as substitute; Str. C-1 (temple)
	A20	adult with facial bones removed and mosaic mask placed as substitute; Str. A-V (temple)
Tikal	85	adult male with skull & femurs removed and jade mosaic mask as substitute; Str. 5D-sub.2 (temple)
	48	adult male (Stormy Sky) with hands and skull removed; accompanied by 2 young adult males; Str. 5D-33 (temple)
Altun Ha	C-16/22	adult female with severed calvarium; residence
Dzibilchaltun	450-1	headless old adult male with bowl in place of skull accompanied by child and headless adult female; ceremonial platform
	385-1	adult with facial bones removed and legs defleshed, accompanied by child; vaulted residence
	385-2	bowl over skull of individual with face removed and legs defleshed; vaulted residence
	385-3	bowl over skull of adult with face removed; vaulted residence
	57-5	bowl over skull of adult female with face removed accompanied by severed skull of adult female; vaulted residence
Altar de Sacrificios	79	youth with head and hands missing, but disturbed; housemound

They were located in the centre rooms of family structures that acted as shrines to the dead ancestors (Thompson 1966: 144). Indeed, each important residence had its family oratory, either in a special room of the house or in a nearby building, the shrines being used for ancestral cults with family ossuaries before the altar (bench) (ibid.: 147). The similarity with our sample suggests that this Postclassic custom had a considerable antiquity.

In addition, of the 37 bench burials, 13 are of children, Burials C8, C9 & C7, San José, A48 & A57, Uaxactún, and E-7/25, C-10/6, 8, 3, 4 & 7, and E-14/8 & 9, Altun Ha; 1 of a mother and child, A44, Uaxactún; 1 of a youth and child, E-14/4, Altun Ha; and 1 of a mutilated individual in an urn, B7, Baking Pot. Each of these burials may have been sacrificial or dedicatory in nature. Though not the focus of veneration, their placement may have been dedicated to family ancestors.

The final clue consists of 11 burials in which the interred, or primary interred, had the face or skull removed, in some instances along with the hands or femurs (Table 111). I do not believe any of these instances of mutilation indicate sacrifice, and although Burial 79, Altar de Sacrificios, was disturbed it is too similar to the others not to be intentional removal of the skull rather than accidental displacement. Since at least 3 of the interred had their missing face or skull substituted by a mosaic mask, this implies removal for a purpose other than sacrifice.* I suggest the face or skull were removed for the purposes of worshipping them or even worn as masks in later rituals.

*There were 8 other instances of interments with skulls removed that resemble the 11 in Table 111 but which have been listed as sacrifices, i.e. Burials R4 & R5, Baking Pot, E12 & E2, Uaxactún, C-13/7, Altun Ha, and 108, 89 & 66, Altar de Sacrificios (Table 104). I believe these 8 were sacrifices because skulls, not faces, were removed, only 1 had accompanying grave goods - 89 - and none had masks. This implies a lack of care and respect that was present with the furnished, faceless burials in Table 111. Therefore, the former are considered sacrifices, the latter are not.

The instances of the 2 faceless adults with defleshed legs in Str. 385-1 & 385-2, Dzibilchaltun, are interesting. These instances suggest acts of cannibalism to me. Could it be that the flesh of the deceased was devoured in order that the spirit of the ancestor lived on in each who had a bite? Not inconceivable considering the importance that seems to exist in retaining the facial bones or calvaria (see below).

Together, these 4 clues provide the implication that the Classic lowland Maya practised ancestor worship. The presence of benches, altars, special platforms and temples over some burials reveals that some individuals were venerated. The carbon and ash remains suggest that rituals were conducted in honour of these individuals at the time of their burial and/or at certain periods thereafter. Faces and skulls of some dead ancestors were possibly retained to be displayed and worshipped at appropriate times. So like the Postclassic Maya of Mayapan, I believe the Classic lowland Maya also practised ancestor worship and probably to a fairly pervasive level, i.e. from a family level in residences to lords of the realm in temples. The ethnographic and ethnohistoric literature, and the ancient Maya art and iconography support this contention, as does, I believe, the practice of ritual sacrifice. Furthermore, ancestor worship may well have been the primary factor stimulating many social, religious and political acts and rituals. In examining the supporting evidence, let us work back in time.

Ethnographic and Ethnohistoric Literature

The practice of ancestor worship has not attracted much attention for study by many of the Spanish conquistadores, priests or merchants, nor has it attracted much study today. However, enough observations have been made to provide compelling evidence for its existence and the nature of its practice.

Ancestor worship seems to exist to this day in districts of Highland Guatemala. For the Highland Maya in Momostenango, ancestors comprise 1/3 of the natural pantheon that affects human (Mayan) existence. The other two parts are God, ghosts, angels and saints as adopted from Christianity, and the World (Tedlock 1982: 41). So important and influential are these ancestors that each patrilineage has 3 groups of lineage shrines where shamans perform rituals for the lineages to their ancestors on specific appropriate days (ibid.: 36 & 77). The ancestors had to be praised to prevent bad things from happening and encourage good things to happen.

For the neighbouring Aguatecas, ancestor worship also occupied an important dimension in the society. From time to time a community dance festival would be held for the ancestors to temporarily free them and allow them to mix with the living (McArthur 1977: 12). Among the Lacandonas, each settlement (plaza group) contained a sacred hut where all the religious observances were carried out and where the gods of the family - ancestors? - were kept (Tozzer 1907: 39). If these family deities were ancestors this description parallels the plaza groups of the ancient Maya and suggests not only the custom of ancestor worship but that plaza groups were occupied by families and the sacred hut was the household shrine for family ancestors.

However, there is conflicting evidence from another community. In a Quiché Maya district of Highland Guatemala, ancestor worship was reserved for high ranking lords, not commoners, because it is known from modern ethnographic studies that

No attempt was made to preserve the bodies or memories of commoners. The body of the vassal was food for the earth, while the essence of the deceased was believed to enter the air and clouds, where it would coalesce with the other dead, to be carried to and fro with the winds. The individual lost his personal identity, returning to the earth and sky from which he had never been far removed (Carmack 1981: 150).

This is hardly auspicious evidence for my contention. The limited evidence for ancestor worship among ancient Maya common households may be because

they held the very same belief and the custom was only reserved for, of and by the Maya aristocracy. The ethnohistoric literature is more supportive, however.

The Quiché Maya had 24 principal patrilineages and a number of vassal lineages (Carmack 1981: 156 & 160). Each lineage was a landholding unit (ibid.: 161) and each had a leader to represent the group, the leaders of the principal lineages having positions of greater political power and status, and of course, ownership of more land. Each lineage could trace its line back to an ancestor of 5 or 6 generations (ibid.), useful knowledge for determining land holding rights, and each lineage had a patron deity that was associated with a force of nature and a totem (ibid.: 62). The patron deity could link a lineage to a force of nature and the link would be made by the sacred rituals practised by the lineage leaders. Sometimes this would include sacrifice and/or the shedding of their own blood (ibid.: 63). The lands of each lineage had sacred spots where altars were built to permit these and other similar rituals, and the most important one was the 'sleeping house', a shrine for the ancestors (ibid.: 161).

A lineage territory could be riddled with countless numbers of these altars (sacred places), some near residences, some in the wilderness, but most were for conducting rituals to the ancestors. People in the rural areas could visit their rural altars to make contact with their ancestors and, through them, contact the more powerful deities who were only available for contact in the town temples (ibid.: 285). The ancestors could obviously act as go-betweens.

It is tempting to enquire what might be found beneath some of these altars. Weeks remarks that after a Quiché noble was entombed, the grave was covered by an altar on which they commonly burned incense and offered sacrifice (Weeks 1983: 60). Elsewhere we find that "afterward above the tomb they [Quiché] made an altar a cubit high, of lime and stone well

whitened, on which they commonly burned incense and offered other sacrifices" (Las Casas as translated by Miles 1957: 750). Could it be that places were considered sacred and had altars built because lineage leaders had their graves there? Apart from these two statements I have found no further information to confirm or deny this but it should prove of interest to find out. Obviously ancestor worship was practised among the Quiché Maya to some extent, though the emphasis appears to have been with lineage heads who conducted important rituals and through whom lineage land was owned and distributed. Nonetheless, its importance can not be over-emphasized because even today among the Quiché Maya the essence of ancestors lives on as a great moral force of the universe, and the cemetery is an important site for rituals to the ancestors (Carmack 1981: 352). I suspect this implies a continued connection between where ancestors were buried and where the rituals were to be conducted.

Turning to the Yucatan, Landa also provides interesting commentary, mostly inferences, about ancestor worship. His descriptions are also very useful in informing us of the extent of idolatry among the Yucatan Maya, much of which, as it transpires, was associated with ancestor worship.

We are first informed about the enormous number of idols that were worshipped by them. We read that

They [Yucatan Maya] had a very great number of idols [in temples] and the lords, priests and the leading men had also oratories and idols in their houses, where they made their prayers and offerings in private (Tozzer 1941: 108).

This informs us that idols were worshipped not only publicly but also privately in the private homes of the well-to-do, which fits in well with the descriptions of shrines and oratories of family worship in Postclassic Mayapan (see above p. 282). But we are also told that "the common people also had private idols to whom they sacrificed" (ibid.: 108, note 497). So just about every one had them.

But what do the idols represent? Landa begins to give us clues:

They had such a great quantity of idols that even those of their gods were not enough; for there was not an animal or insect for which they did not make a statue, and they made all these in the image of their gods and goddesses (Tozzer 1941: 110).

This provides the first indication of what the idols represent: gods and goddesses. But surely the comment that there were images of every animal and insect can not all represent gods; but if gods, gods of what? We are then given more clues:

..... in our opinion there must have been more than 100,000 [idols] [made] of stone, of wood and of clay. Others were made of ground maize Some [were] figures of bishops some are figures of men and others of women, others of fierce beasts as lions and tigers, and dogs and deer, others as serpents others as eagles, and others as owls and as other birds. Others of toads and of frogs and of fish (ibid.: 110, Note 496).

This is quite a collection of images and I have the impression that many idols were the symbols of the totemic animals of different clans and lineages. But could the figures of men and women be images of ancestors?

There are more clues:

The wooden idols were so much esteemed that they were considered as heirlooms the most important part of the inherited property but they held them in reverence on account of what they represented (ibid.: 111).

But what did they represent? Whatever it was it seems rather important.

Landa at last tells us in this following passage on a discussion of burying the dead. We read:

They buried them inside or in the rear of their houses, casting into the grave with them some of their idols, As for the nobles and persons of high esteem, they burned their bodies and placed their ashes in urns and when they were of very high rank they enclosed their ashes in statues of pottery made hollow. The rest of the people of position made for their fathers wooden statues of which the back of the head was left hollow and placed its ashes there They preserved these statues with a great deal of veneration among their idols. They used to cut off the heads of the old lords of Cocom, when they died [and] they kept these together with the statues with the ashes all of which they kept in the oratories of their houses with their idols, holding them in very great reverence and re-

spect. And on all the days of their festivals and rejoicings they made offerings of foods to them so that the food should not fail them in the other life, where they thought that their souls reposed, and where their gifts were of use to them (Tozzer 1941: 130-31).

This revealing passage informs us that some idols did represent ancestors. In some instances not only did they represent ancestors they literally were them, either as a human figure containing their cremated remains, or by being the actual heads (or just faces?). Landa also reveals that they were kept in their houses where on certain days of the year the head or idol could be brought out and offerings made to it. In other words, private worship. What is not clear is the extent to which this was practised. Landa initially refers to persons of high esteem but then refers to the custom among the rest of the people of position. I presume he is still referring to people of some status. There is little reference to the commoners so no real knowledge of the extent of its presence among them. Though we are told that each lineage had its own patron deity in Yucatan society (Roys 1943: 35), we are not informed whether all households worshipped them.

In another series of passages Landa reveals the sort of rituals involved with the worship of idols:

And they returned to the worship of their idols and to offer them sacrifices not only of incense but also of human blood (Tozzer 1941: 75-76).

and

They offered sacrifices of their own blood they pierced their tongues in a slanting direction from side to side and passed bits of straw through their holes with horrible suffering (ibid.: 113).

and

Holes were made in the virile member of each one obliquely from side to side and through the holes which they had thus made, they passed the greatest quantity of thread that they could, and all of them being thus fastened and strung together, they anointed the idol with the blood which flowed from all these parts (ibid.: 114).

Rather gruesome to say the least but we shall see that his observations were of rituals virtually identically to what is depicted in the ancient Maya art (see below). It was apparently one method of communicating with the dead.

These passages clearly reveal the practice of ancestor worship among Quiché and Lacandon Maya in the 16th century. The former worshipped their ancestors at altars in various locations within the landholding area of their lineage. It is conceivable that individuals had been buried at these altars. Excavation of Postclassic Santa Rita Corozal has revealed 3 different types of altars, 2 of which were constructed over burials: a formal square construction, like a bench, attached to the rear wall of an interior shrine, and a low, square stone construction set in open areas in front of larger buildings (Chase 1985: 114). The Lacandon Maya, on the other hand, concentrated on the worship of idols who represented former ancestors, or on the actual heads themselves. The worship was practised in their own homes, as well as in public. Both groups performed rituals to their ancestors at various times of the year and self-mutilation and sacrifice were involved in carrying out these rituals. Much of these observations confirm some interpretations of our burial data and the presence of ancestor worship, e.g. the use of real heads of real ancestors; the conducting of rituals at altars over burials or at benches within a house or shrine; and the fact that rituals took place at all. What is not known is the extent to which the custom was practised by the common folk. The ethnohistoric literature does not really enlighten us much in this respect. Ancestor worship was nevertheless practised to a considerable extent among the well-to-do.

Ancient Maya Art & Iconography

The ancient Maya art and iconography are as enlightening about ancestor worship too. This is a result of recent developments and the meaning of much iconographic and related artistic depictions have only recently become deciphered and understood. These provide a rather different complexion of Maya behaviour than was hitherto believed.

The evidence for ancestor worship is not direct. What the art and iconography reveal are the acts the Maya conducted in their various rituals. The depictions portrayed are precisely the gruesome sacrificial and self-mutilating acts described by Landa. The depictions of heart sacrifice, decapitation, and the like have already been described (see chapter 11). But there are also depictions of self-mutilation of the tongue and penis as described by Landa.

Two examples of tongue mutilation come from Lintels 24 and 17, Yaxchilan. Lintel 24 shows Lady Xoc, wife of the ruler, Shield Jaguar,

..... pulling a thorn-lined rope through her mutilated tongue. The rope falls to a woven basket, which holds blood-spotted paper and a stingray spine. Her lips and cheeks are smeared with dotted scrolls, symbolic of the blood she sheds to sustain the gods (Schele & Miller 1986: 186-87 and Plate 62).

Lintel 17 shows virtually the same scene, only the actors are Lady Balam-Ix and Bird Jaguar, descendants of Lady Xoc and Shield Jaguar (ibid.: 189 and Plate 64).

The ritual of penis mutilation has even more vivid depictions. A Classic period vase of unknown provenance depicts 3 dancers performing in this ritual for a Maya lord:

Their white loincloths are spattered with blood because the dancers have perforated their penises. As they whirl, blood is drawn into the paper panels extending from their groins (ibid.: 193 and Plate 72).

This scene is of course very similar to the scene in Room 3 of the Bonampak murals in which 7 dancing figures at the base of the pyramid and another

three on the steps have had their penises perforated with paper panels. They are performing a similar dance for the Maya lord after his victory in war and the securing of captives for sacrifice (Miller 1986: Plate 3). In addition, there are a number of figurines depicting the rite, one of which consists of a man sitting cross-legged and

laying his exposed penis across a stack of blue paper as he makes the cuts to draw blood (Schele & Miller 1986: 192 and Plate 70).

Another type of bloodletting depicts individuals conducting the self-mutilation for the purpose of inducing an hallucinatory vision, a vision quest. On Lintel 25 of Yaxchilan, Lady Xoc is seen kneeling. In her right hand she holds a plate containing bloodied paper and lancets, and in her left, one containing bloodied paper, a stingray spine and an obsidian lancet. Another plate sits on the floor in front of her holding lancets, bloodied paper and a rope, and from this a huge double-headed Vision Serpent has reared up (ibid.: 187 and Plate 63). A second image comes from Lintel 15, also of Yaxchilan. One of Bird Jaguar's wives sits in front of a clay bowl lined with bloody paper from which a bearded Vision Serpent rears up through a beaded blood scroll. From its mouth emerges the ancestor whom the lady has contacted in the rite (ibid.: 190 and Plate 65). Both images clearly associate the quest for the vision of an ancestor with completed acts of bloodletting.

These seven examples of bloodletting present two different, but related, types of ritual. Both the tongue and penis self-mutilation were acts committed in rituals commemorating the designation of an heir or an accession to the throne. These were important events because although the king had to be of legitimate ancestry and lineage, ritual sacrifice and bloodletting were also necessary parts of the process to sanctify the new ruler (ibid.: 110). They continue:

To the Maya, human beings were created to nourish and sustain the gods through sacrifice. The ruler was both human and god and,

thus, the vehicle through which the sacred and profane interacted. The transformation of an heir into the king required sanctifications of the most sacred kind - human blood (Schele & Miller 1986: 110).

So if he were of the right blood (ancestry), and sacrifice and bloodletting were conducted as rites, his rule would succeed. The proper ancestry legitimised his rule and the blood was the substance that sealed the ceremonial events. A king's rightful place could only be secured by these rites and by his ancestry, sometimes traced to a god himself (ibid.: 104). Hence the reason for the extent of warfare to acquire captives to be sacrificed, and for self-mutilation.

The second type of self-mutilation depicted, the vision quest, is closely related to the rites of the first. It is known that endorphines are a chemical response in the brain as a result of massive blood loss. This will induce an hallucinogenic experience (ibid.: 177). The purpose of inducing such visions was in order to communicate with the gods and ancestors. The vision serpent was the contact between the supernatural realm and the human world. If contact were established, the rite would sanctify the event. All stages of life, and events of political or religious significance, e.g. planting of crops, birth of children, building construction, marriage, or the burial of the dead, required the rite of bloodletting to induce an appearance of the Vision Serpent and so permit communication with the gods and ancestors. Only then would the success and continuation of life be secured. For Maya lords, contact with the ancestors was vital, both to secure their succession and to ensure the success of society.

It would have been particularly important for the Maya to have contacted the ancestors at the time of a person's (lord's) death if the Maya considered death to have been a rite of passage. A rite of passage refers to the rituals performed on an individual as he/she is permanently processed or transformed from one state (status) to another. Birth, puberty, mar-

riage and death are such instances. These rites contain 3 stages and for death these would be:

- 1) change of condition (person dies),
- 2) process of changing (preparation for and act of burial),
- 3) the new status after the change (becomes an ancestor).

Since the ancient Maya did not seem to have regarded death so much as a final break but as a change of status which left ancestors still connected to their living descendents (Hammond 1982: 286), then the Maya must have considered death as a rite of passage and would have conducted rituals and attempted communication with the ancestors at the death of a person to ensure a successful transition of the status, and transportation of the deceased from this world to the next.

Thus, it is becoming obvious why ancestor worship was so important to the ancient Maya. Though we do not have direct iconographic evidence for such rituals to have occurred on altars or in shrines upon the death of a lord, Landa's observations and the archaeological evidence suggest it to have been so. Pyramidal temples which housed the tombs of dead ancestors and recorded ancestral history in their inscriptions, were also the sites of bloodletting (Schele & Miller 1986: 269). And since the king acted as the transformer through whom, in ritual acts, the power of the supernatural passed into our world (ibid.: 301), the death of a king was no better a time for such rites to occur, both for the immediate ancestor to give his blessing and for the new successor to seek it. The iconography on Pacal's sarcophagus states that he has died as a king but will be reborn a god, i.e. a deified ancestor (Robertson 1983: 56), and as a god he would be very capable of blessing his successor. The successor would be obliged to conduct the rituals to his ancestors to complete the succession. Only then could this dangerous period between ruler's death and successor's enthrone-ment be surmounted. Hence the reason for continual destruction and recon-

struction of building complexes like the North Acropolis, Tikal. It suggests to modern eyes a planned obsolescence and public works programme, but the demands of a ritual based on the veneration of ancestors must necessarily involve reorganisation and new monuments when rulers die and themselves become ancestors (Coggins 1975: 52). With constant construction and reconstruction of the temples at places like Tikal, it became a virtual public works programme with perhaps fundamental consequences to the developing social complexity of the society. Once started, ceasing such activity would be extremely dangerous: imagine the social problems, let alone what the ancestors might do!

Other important evidence for ancestor worship is apparent from the contents and iconography of the graves and shrines. The human figurines, painted pots, and iconography in a number of graves seem to symbolise or depict ancestors. The shrine over Burial 167 at Tikal has a repeated sky signature to indicate it to be the home of the ancestors to whom the shrine was dedicated (ibid.: 72). In a similar vein, several polychrome pots with scenes of an enthroned ruler may be depicting rites of the ruling elite in association with the veneration of a dead ruler (ancestor) (ibid.: 302). More interestingly, however, there is the possibility that the mythical aspects portrayed on many pots were dynastic insignia (of rulers) indicating family origin and ancestry, such as water birds, fish or water serpent (ibid.). These may have been the totems of the ruling lineages which became the symbols of the cities in which they ruled.

Some principal figures of Maya dynastic history boasted of mythological ancestries, e.g. Pacal at Palenque, Turtleshe'll at Piedras Negras, Bird Jaguar at Yaxchilan, and Two-Legged Sky at Quirigua. Their ancestors are cited as flourishing in the most remote times and as occupying another cosmological stage (Kubler 1974: 33). Given the Maya cyclical view of time, was this done to validate their rule and power?

The Kan Cross and Muan Feather may have had dynastic ties to Piedras Negras (Coggins 1975: 412). The Manikin Sceptre figure, visible on Stela 31 and placed as a figurine in two Tikal Ruler's graves, e.g. 10 & 195, may be the emblem of the clan deity of Curl Nose (Burial 10), ancestor of Stormy Sky (Burial 48), whose name is in fact the same as Curl Nose's ancestral sky deity (ibid.: 185). It is also perhaps the Mayan version of Tlaloc (ibid.: 343), revealing the family origin (Teotihuacan) and who may have become the ancestor god of the two cities, Tikal and Teotihuacan.

The figure of a clan deity may also be buried with the rulers in Altun Ha. The enormous figurine of the Sun God (Kinich Ahau) in Burial TB-4/7 may be the clan deity of this Altun Ha ruler - yet to be proved but the wealth of the tomb and the iconography suggest he was - which became the ancestor god of the city. Similarly, the clan deity of the ruling family at Palenque may have become the city's ancestor god. The Piers on the Temple of Inscriptions imply a symbolic association between Pacal, his successor, Chan Bahlum, and God K (Robertson 1983: 37-38), with God K being rather visible on other structures. This perhaps implies ancestral association. Schele and Miller (1986: 267) suggest that underworld creatures became patron deities of cities, such as the jaguar for Tikal. I believe the ancestral deities of ruling families did also. The rites of the vision quest and accession to the throne seem to have been so important in legitimizing and sanctifying political rule it would hardly be surprising for the ancestral deity of the ruling family to become the patron deity of the city they ruled. It is not clear whether these deities were gods or deified ancestors but ancestral deities may be found at other sites.

In conclusion, the depictions of rituals to ancestors in the ancient art and iconography, and the descriptions of rituals in the ethnohistoric literature are compelling evidence for the implied existence of ancestor worship from the burial data. The depictions and descriptions inform us of

the actions of the rites and what they were for, the archaeology and ethno-history provide a good indication where the rites were performed: temples, household shrines, altars and other structures associated with burials.

However, the art, iconography, and the ethnohistoric literature only describe ancestor worship as practised among the Maya elite and the well-to-do. There is virtually no comment about the custom among the common folk. This is to be expected since the Maya rulers had artisans to depict details about their rule and ancestry, not commoners, and Spanish observers were likely to have been in closer contact with the elite than the poor. And most of the archaeological data are confined to evidence from household shrines and temples of elite families and lords. They had the wealth to create the elaborate constructions on which the rituals were performed and which have survived, but which the poor could not emulate. The presence of benches (altars?), and the removal of heads for worship in some residential burials, however, imply that it was practised. Securing a family or a clan leader would have been of as much immediate importance as who the ruler was. It was through the family head that things like property rights and land accession were determined. Rites may not have been as elaborate but were probably just as important. Future excavation, if conducted looking for the right signs, could better reveal the practice of ancestor worship among the commoners.

CHAPTER THIRTEEN

MAYA BURIAL CUSTOMS

Maya Burial Customs

The descriptions, correlations and analysis of the previous chapters have revealed a number of customs adopted by the ancient lowland Maya in burying their dead. Some customs vary from site to site and have a limited distribution, while others seem to have been practised throughout the lowlands. These practices may be distinguished as pan lowland, or as regional customs and we shall now discuss each individually.

Pan Maya Burial Practices

The Pan Maya burial customs that have become evident from this analysis are as follows:

- 1) There is little evidence for cremation during the Preclassic, Proto-classic and Classic periods. Only 6 instances of cremation were recorded from 3 sites, Mountain Cow, Tikal and Toniná, and 3 of these date to the Postclassic, the period in which cremation began to become fashionable.
- 2) For this period inhumation was the norm throughout the lowlands. Individuals were interred under every type of structure and dwelling. There does not appear to have been a necropolis or cemetery at any site - an observation which may require us to look again at the burials from a supposed necropolis at Jaina (Moedano 1946; Pina Chan 1948). However, because of the lower number of burials found at several sites a cemetery may yet be discovered.
- 3) Though interments were made under virtually every type of building, structures usually, though not exclusively, located on the eastern side of residential plazas seem to have been constructed for the purpose of housing burials. The burials of these buildings, called household shrines, were generally better furnished and probably contained the people of greater wealth and status living within the respective residential plazas.

This demonstrates that Becker's (1971; 1986) Plaza Plan B arrangement is not exclusive to Tikal.

4) The aristocratic ruling families and rulers of sites had their interments reserved for temples, and occasionally ceremonial platforms or household shrines. These burials are particularly noticeable for their amount of grave goods and all 9 known Maya rulers were buried in such structures (Table 99). The sites in which the wealthiest interments were not found in temples, was either because no temples existed at the site, i.e. Barton Ramie, or had not been excavated, i.e. San José, Seibal and Copan.

5) Many of the better furnished graves had special burial constructions erected over them, ranging from altars, benches, stair blocks and platforms to entire household shrines and temples (Tables 108, 109 & 110). These constructions were erected as memorials to the deceased and it was the sole purpose for their construction. Rituals were probably conducted at such constructions at the time of interment and appropriate times thereafter. This strongly implies the practice of ancestor worship.

6) The more complex graves of crypts and tombs were more usually found in temples, household shrines and ceremonial platforms. As a corollary they also tended to be better furnished. Of the 65 best furnished temple or household shrine graves, 24 were tombs, 22 were crypts, 7 were cists and 12 were simple (Table 98). The graves of all known Maya rulers were tombs. In contrast, of the 14 best furnished residential graves, one was a tomb, 3 were crypts, 4 were cists and 6 were simple (Table 96).

7) Primary, single interment was the preferred way of burial (Table 3). The 3 sites where such a practice was not so prevalent resulted from grave disturbance (Mountain Cow), and no data on the methods of disposal for a significant number of burials at Dzibilchaltun and Palenque.

8) There seem to have been 4 forms of human sacrifice practised. The first is the multiple, primary burials consisting of a mother and child, adult

and child or adult(s) and child(ren). There were 35 instances of these from 9 sites (Table 101).

9) The second form of human sacrifice is evident from the multiple burials that consisted of a primary interment accompanied by one or more secondary interments. The secondary interred seem to have been sacrificed because of the fact that grave furniture was placed around the one primary interment; the accompanying individuals were placed at the extremity of, or outside, the grave, and the accompanying interred were often intentionally mutilated in some way. Sacrifice was probably made in honour of the primary interred individuals. There were 25 such burials from 7 sites (Table 102), including 5 of known rulers (Table 99).

10) The third form is apparent from the dedicatory cache burials. Infants or adult skulls were placed between bowls and then deposited below or in front of temple altars, stelae or temples as dedications. These are identical to caches except that they consisted of human victims. There were at least 26 such burials from 9 sites (Table 103).

11) The final form of sacrifice is evident from the severely mutilated skeletons in some burials: headless bodies, skulls without bodies, bodies without femurs, legs without bodies, mandibles only, and deliberately disarticulated and scattered skeletons. These interments were most often found in plazas and ceremonial platforms but could be found in residences. There were 45 such burials from 9 sites (Table 104) including the grave of a sacrificed ball team (Burial 4, Seibal).

12) Some instances of skull removal may not indicate sacrifice. Eleven instances of skull or facial removal were for the purposes of worship (Table 111). The graves were well furnished (one was of Stormy Sky) and three had mosaic masks. These examples seem to fit Landa's descriptions of the worship of the actual skulls of deceased ancestors.

13) The disposing of the dead with a bowl over or under a skull was a very

common practice. There were 114 instances from 10 sites (Table 35).

These were most commonly found in residences (79) and simple graves (77).

The purpose was probably to protect the skull.

14) Urn type burials were also fairly common with 33 instances from 8 sites (Table 36). I am not positive about their purpose but human sacrifice may be involved, perhaps in a similar vein to dedicatory cache burials.

15) There were 8 examples from 5 sites of skeletons with a shell over the skull (Table 38). Though not common, its presence from 5 sites suggests it to be a Pan Maya custom. All 8 burials were well furnished and included 2 known rulers, Burials 196 & 160, Tikal (Table 99). Since conches were used to call the gods in some rites, the purpose of this practice may have been to call the gods to the deceased.

16) There seems to have been a preference for a specific skeletal position of the interred at most sites. It was discovered, however, that skeletal position was correlated with grave type and dimensions at 7 sites: flexed in the smaller cists and simple graves and extended in the larger crypts and tombs. The prevailing skeletal positions at some sites are discussed under regional practices.

17) At every site except Altun Ha, a majority of skeletons had their heads orientated in one direction. At Altun Ha there were two prevalent orientations. Although orientations conform to a regional pattern (discussed below), the fact that there are prevailing orientations at every site establishes this as Pan Maya.

18) Generally speaking, the sort of furniture the Maya placed with their dead was uniform throughout the lowlands, though the amount varied from site to site. Stingray spines, jade mosaic masks and plaques, codex remains, and jade and shell figurines were only found in the graves of rulers or of the most wealth and status.

19) Clay figurine whistles were more commonly found in child burials. Jade

beads were frequently placed in the mouths of skeletons and bodies were often covered in ochre.

20) Male and female burials were comparably furnished, and though adult burials were generally better furnished than child burials, the disparity was minimal. There were some very well furnished youth burials.

Many of these Pan Maya customs were actually observed by Ruz in his general investigations from 115 sites of ancient Maya and Mexican mortuary customs (Ruz 1965; 1968). Customs he noted were: the lack of cremation and prevalence of inhumation, the existence of adult and child burials, urn burials, a prevalent head orientation at Palenque, Uaxactún, Barton Ramie, Baking Pot and San José, the presence of cache type burials in front of altars and stelae, and the fact that well furnished burials were found in temples, tombs and crypts. Since this present analysis is more detailed and specific in scope, and more precise data are available, not only are we able to confirm Ruz's observations but greatly expand and elaborate on them too. Moreover, we are able to indicate customs he did not observe, e.g. shell over skull burials, the existence of household shrines located on the east side of plazas and built solely to house burials, the erection of special burial constructions, such as altars, benches and stair blocks, over well furnished graves, and the extent of human sacrifice and ancestor worship. Our discoveries in no way diminish his, they simply take us a few steps further in understanding the ancient Maya.

Regional Burial Practices

It was observed that some practices did vary from site. What were these practices and do any constitute regional customs? The apparent anomalies were as follows:

1) Simple graves prevailed at Altar de Sacrificios regardless of context.

- 2) Crypts were the prevalent grave type at Dzibilchaltun, Palenque and Toniná.
- 3) Urn burials were found primarily, though not exclusively, at Dzibilchaltun.
- 4) There were few, if any, bowl over skull burials at Copan, Piedras Negras, Palenque and Toniná.
- 5) Few pots were buried with the deceased at Palenque and Piedras Negras.
- 6) Reusing graves for successive interments occurred exclusively at Toniná and Palenque.
- 7) Looted or unused graves were primarily restricted to Dzibilchaltun.
- 8) Altar de Sacrificios and Seibal burials dated to the Terminal Classic, i.e. Boca-Jimba or Tepejilote-Bayal phases, contained a notable lack of furniture (none).
- 9) Though skeletal position may primarily be associated with grave size, a prevalent position occurred at many sites. The flexed position prevailed at San José, Altar de Sacrificios, Uaxactún and Copan. The extended position apparently prevailed at Piedras Negras, Palenque and Dzibilchaltun; extended and supine at Altun Ha and Toniná; and extended and prone at Baking Pot and Barton Ramie.
- 10) Prevalent head orientations for the deceased occurred at every site. Head to the south prevailed at Baking Pot, Barton Ramie, Benque Viejo, San José, Holmul and in temple contexts at Altun Ha. Head to the north prevailed at Piedras Negras, Palenque, Toniná, Tikal and Uaxactún. At Uaxactún, head to east prevailed in temples, but head to the north prevailed in housemounds and overall. Head to the east was the prevailing orientation at Dzibilchaltun, Seibal, Altar de Sacrificios (especially in temples, though head to north prevailed in housemounds), Copan, and in residences at Altun Ha.

The fact that these customs have been observed as being site specific

or regional does not necessarily imply a significance. The customs themselves may be unimportant, or more likely, the result of sampling error and/or contextual bias. So let us enquire whether any of these anomalies are regional and/or significant.

The prevalence of simple graves at Altar de Sacrificios is almost certainly a result of sampling error. Though many graves were found in ceremonial platforms and temples, they were excavated from temple terraces and courts where simple graves tend to occur at all sites. Many such graves contained sacrificial victims (Tables 103 & 104). Had excavation been concentrated in the centre of the temples or special constructions, the more elaborate grave constructions would have been found as Burial 128 demonstrates (Table 98). The prevalence of simple graves in the housemounds is as expected. (For example, compare the grave types with those of Barton Ramie.) So sampling error, not regional preference, produced this anomaly.

The prevalence of crypts and tombs at Toniná and Palenque may again be a result of sampling error. Most of the graves from these two sites were excavated from the temples of the central precinct, many of them being well furnished (Table 98). I suspect this prevalence is a result of excavation bias in locating many of the wealthier burials of better grave construction. The prevalence of crypts at Dzibilchaltun is not so easily dismissed. Most of the graves were found in residences, buildings which normally contained simpler graves. Therefore, the prevalence for crypts may be a site preference. Whether it was regional is impossible to tell since we have no other contemporary burial data from the North Yucatan with which to compare (but see Appendix III).

The prevalence of urn burials at Dzibilchaltun may be a custom that is more apparent than real. It is not an exclusive pattern since 21/33 urn type burials were found at other sites (Table 36). But urns were primarily used at Dzibilchaltun to contain bodies rather than bowls or dishes. It

may simply be that this is a preferred ceramic shape at the site, or possibly a result of our ceramic classification! The fact that most, if not all, urn type burials from all sites had a similar purpose - dedicatory sacrifice of infants (see chapter 6 and Table 36) - makes me suspect that urn burials at Dzibilchaltun may only be distinct in the actual shape of the pot used to contain the infant. The purpose is otherwise the same. Therefore, I rather doubt whether this anomaly is regional or even site specific.

The fact that there were few bowl over skull burials at Copan, Piedras Negras, Palenque and Toniná was probably not significant or regional. It was discovered that the bowl over skull mode of burial occurred primarily in residences. Fewer residential burials were found at these four sites, which probably accounts for the lack of evidence for this practice.

The lack of pots in Palenque and Piedras Negras burials is intriguing. Relatively few pots were found in the really wealthy burials, especially Pacal's, Burial 11 (see Table XV, Appendix I). The known rulers of Tikal were all buried with far more ceramic vessels, e.g. Burial 10 (Curl Nose), Burial 48 (Stormy Sky) and Burial 196 (Yax Kin). As for Piedras Negras, the sample is too small to be reliable even though the one wealthy burial, Burial 5, had few pots. But the fact that pots, however few, were consistently found in the Palenque graves, and that many pots were found in Toniná graves (see Tables XV & XVI, Appendix I) suggest this was not a regional custom and probably more apparent than real.

The reuse of graves for successive interments at Palenque (probably Burials R12, R13, R7, R3, R5 & R1) and Toniná (Burials IV-1, IV-2, IV-3 and IV-9) was a regional custom restricted to these two sites. I do not pretend to know why this was done but it was not observed elsewhere.

The presence of many looted or unused graves at Dzibilchaltun (Table 3), though probably unrelated to any mortuary custom, does attract my at-

tention. It would be ridiculous to believe that grave robbing was restricted to this site. Some of the alarming stories of grave robbing one hears from the lowlands would indicate such a belief to be categorically untrue. However, I have this suspicion that some of the graves were prepared for burial but for some reason never used. Why? I do not know the answer but I sure would like to find out. So, though not actually a mortuary practice, this anomaly is restricted to Dzibilchaltun.

The existence of 20 unfurnished Boca-Jimba phase burials at Altar de Sacrificios and 4 during the contemporary Tepejilote-Bayal phase at Seibal is another anomaly that may result from sampling error. The 20 Altar de Sacrificios burials were located in the extremities of the palace acropolis and ceremonial platforms, areas where retainers and sacrificial victims were probably buried and who were unlikely to have had many grave goods - they certainly did not whoever they were! The 4 Seibal burials were from peripheral housemounds. Burials in such a context were rarely well furnished at any site. Furthermore, Seibal and Altar de Sacrificios burials were not well furnished generally since few burials in the core of temples were excavated. Those that were, had been well furnished, e.g. Burials 128 and 88, Altar de Sacrificios. So, though it may be unusual for a complete absence of furniture in Terminal Classic graves, this absence is not out of line with the generally poorly furnished graves of both sites. But excavation bias, not regional mortuary customs, has produced this anomaly.

The apparent regional associations of skeletal position are probably not necessarily important or regional but part of a more complex phenomenon requiring closer examination. It is my belief that skeletal position and grave type and size should be correlated (see chapter 4). But where can we actually observe a direct connection between grave dimensions and skeletal position, i.e. extended in large graves and flexed in small? I would confidently suggest that such is definitely the case at Uaxactún, Palenque

and Dzibilchaltun. At all 3 sites the majority of flexed bodies was found in the usually smaller, simpler graves (simple and cists), 46/63 at Uaxactún (Table 9), 9/13 at Dzibilchaltun (Table 12), and 3/5 at Palenque (Table 17), while the majority of extended corpses was found in the usually larger crypts and tombs, 15/27 at Uaxactún, 31/42 at Dzibilchaltun, and 12/14 at Palenque. Such statistics do follow the expected pattern, and therefore imply that skeletal position is related to grave type and size at the 3 sites.

The data from San José and Altar de Sacrificios only partly confirm such an association. The flexed position prevailed at both sites, 45/55 at San José (Table 7), and 78/113 at Altar de Sacrificios (Table 13). Few of the graves at either site were other than simple so the flexed position would be expected to prevail. Since there were virtually no crypts and tombs at either site, we cannot know whether the extended position was selected for such graves. Thus there is only partial support for the grave type - skeletal position correlation.

Two other sites produce supporting and contradictory evidence. Most of the extended skeletons at Piedras Negras (Table 16) and Toniná (Table 18), 6/10 and 8/12 respectively, were found in larger crypts and tombs, which is to be expected. However, the only 2 individuals interred in simple graves at both sites were also extended. Hardly a suitable sample, but opposite of what would be expected nonetheless.

At 3 other sites there exists what is best described as ambiguous evidence. A significant proportion of flexed bodies was found in simpler graves at Tikal (21/45), Seibal (18/33), and Holmul (6/12). Obviously this would leave a large number of extended skeletons in the simpler graves at each site, and so the data are hardly supportive of an association. As for crypts and tombs, there were too few such graves at Seibal (Table 14) and Holmul (Table 8) to be informative, but at Tikal (Table 10) 13/17 of the

skeletons were extended as one would expect. Combining this with the barely supportive evidence provides us with nothing more than data with ambiguous association.

Only at 4/6 remaining sites were there sufficient data to say anything about skeletal position, and at these 4, Copan (Table 15), Altun Ha (Table 11), Baking Pot (Table 5) and Barton Ramie (Table 6), there were prevailing positions for the interred. At Copan, 26/41 individuals were flexed, that position prevailing in all graves except tombs. At Altun Ha, 169/189 bodies were extended, 110 extended supine, the former prevailing in every grave type. But no flexed skeletons were found in crypts and tombs at Altun Ha. Therefore, even at Altun Ha and Copan position was being influenced by grave size. At Baking Pot and Barton Ramie, the extended prone position was prominent even though virtually all graves were simple. Clearly there was no correlation between grave size and skeletal position at these two sites.

So where does this analysis leave us? Only at 4 sites can we definitely say there was a preferred position: Altun Ha, Copan, Baking Pot and Barton Ramie. Only at the latter two could we say that the preference was regional. I would suggest that the extended prone position was simply adopted by convention. At 7 other sites, skeletal position, grave type and size were generally correlated, albeit to varying extent. Thus, with the exception of Barton Ramie and Baking Pot, prevailing skeletal positions were not regional customs but only related to grave size.

This brings us to the last of the possible regional customs: head orientation. The prevalence of one orientation at every site except Altun Ha, and possibly Mountain Cow (Table 112), suggests some sort of significance. The fact that similar prevailing orientations cluster regionally suggest some sort of regional association. It is my belief that these orientations are significant and regional, but determining the significance

Table 112: The prevailing head orientations

Site	Prevailing Head Orientation	% So Interred
Baking Pot	southerly (Table 21)	78%
Barton Ramie	southerly (Table 22)	91%
Benque Viejo	southerly	67%
San José	southerly (Table 23)	92%
Holmul	southerly (Table 24)	56%
Uaxactún	northerly (Table 25)	60%
Tikal	northerly (Table 26)	68%
Piedras Negras	northerly (Table 32)	70%
Palenque	northerly (Table 33)	95%
Toniná	northerly (Table 34)	75%
Dzibilchaltun	easterly (Table 28)	67%
Altar de Sacrificios	easterly (Table 29)	43%
Seibal	easterly (Table 30)	52%
Copan	easterly (Table 31)	48%
Altun Ha	southerly in temples (Table 27) easterly in residences (Table 27)	38% 39%
Mountain Cow	northeast (?) (Table 20)	67% (?)

may be elusive. Nonetheless, a number of possibilities present themselves. These are as follows:

- 1) Head orientation is not, in fact, important. People were buried without any regard to orientation, and therefore, should be random. Site prevalences are simply a result of excavation bias.
- 2) Only one prevailing orientation existed at each site because most of the structures containing the burials had a particular orientation. In other words, head orientation correlates with structural orientation.
- 3) The deceased of each site were usually orientated towards the primary temple, household shrine, lineage leader's house or some other important building.
- 4) Most of the deceased at each site were orientated towards the regional capital.
- 5) The interred at each site were orientated in the direction associated with the year in which each was born.
- 6) The interred at each site were orientated in the direction associated with their clan's totemic ancestor and/or in the direction of their ancestral home.
- 7) The deceased were orientated towards the nearest Ceiba tree in order that they could quickly ascend to heaven.

Let us consider each of these alternative suggestions more closely.

- 1) There is always a possibility that orientation was random and excavation bias created the distortion. But it would be stretching the point to the extreme to suggest that a bias existed at virtually all the sites and that the bias produced a prevailing orientation at virtually every site.
- 2) The idea that head orientation was correlated with structural orientation seems logical. There were some burials which were placed on the axis or perpendicular to the axis of a building, e.g. Burials C1, Uaxactún, 48 & 23, Tikal, A-1/2, TA-1/1 and all but Burial TB-4/4 in Structure B-4,

Figure 3: Map designating the prevailing head orientations of the deceased at each of the 16 sites



Altun Ha, and all of the interred in Str. 7F-30, Tikal. In addition, household shrines and many temples were located on the east side of plazas with a similar orientation. Furthermore, Aveni and Hartung (1986) found a strong preference in the Puuc area (and elsewhere?) for a north/south (in fact, just east of north) orientation of major buildings. So are head orientations simply following the axis of respective buildings? In a word, no. What we actually find is that in most structures with more than one burial, the skeletons were orientated in several different directions, e.g. Burials HM7, HM9, & HM10, Housemound II, Uaxactún; Burials A40 & A42 in the same room of Str. A-V, Uaxactún, Burials 50, 56 & 59, Str. 2G-59, Tikal; Burials C-13/31, C-13/32, C-13/27, C-13/26, C-13/7 & C-13/8 in Str. C-13, and countless others in Str. C-18, A-8, A-1, C-16, C-43 and so on, Altun Ha; Burials 57-4, 57-5 & 57-6, Str. 57, Dzibilchaltun; Burials 34, 52, 62 & 37, Str. A-I, and countless others in Str. B-II and Mounds 2 & 25, Altar de Sacrificios; Burials 23, 24 & 26, Str. C-32, and 36, 37 & 40, Str. 4E-10, Seibal; Burials 19, 28, 31, 34 & 36, Mound 36, Copan; and virtually all the skeletons at Barton Ramie, Palenque, and Toniná were orientated almost exclusively south, north and north, respectively, in every structure regardless of its orientation. A natural consequence of this is that buildings with similar orientations contained deceased with different orientations and buildings with different orientations contained interred with the same orientation. Moreover, individuals in multiple burials were not even orientated in the same direction, e.g. Burials B1 & B2, Uaxactún, 71 & 127, Altar de Sacrificios, 25, Copan, 5 & 3, Piedras Negras, and 11, Palenque. It is therefore obvious that the ancient Maya did not bury their dead in line with a building's orientation.

3) This is another logical possibility that is not supported by the data. It has already been noted above that many of the interred in the same

structure were orientated in different directions. They, therefore, could not all be orientated towards the same temple, household shrine or clan house. Indeed, they need not be orientated towards such a building at all. For example, the skeletons in Str. 7F-30, Tikal, were not directed towards Central Tikal nor any other temple-like building. Furthermore, since we do not know who was related to whom among most of the interred, how could we know to which clan house or household shrine they should be pointed? So not only is this hypothesis unlikely, it is also not demonstrable.

4) The Maya regional capitals are not known for certain nor definitely known that there were any - but see the well argued and convincing proposal of Marcus (1976). The prevailing orientation of the interred at most sites, however, was not often directed towards likely candidates. Most interred at Piedras Negras and Toniná were orientated north towards Palenque, a likely capital, though not for Piedras Negras as it was not named there, and most interred at Altar de Sacrificios were orientated towards Seibal, another possible capital. However, the easterly orientation of the Dzibilchaltun, Copan and Seibal deceased, and the northerly orientation of those at Uaxactún and Palenque were directed at no likely capital. The southerly orientation at the 5 Belizean sites was directed at the distant sites of Copan and Quirigua, both likely regional capitals but much too distant from the more likely and closer contender of Altun Ha, located to the east of these five sites. The interred at Altun Ha, either pointed east to water, or south to Copan and Quirigua. Finally, the northerly orientation of most of the Tikal interred would direct them towards Uaxactún, not a likely candidate for a capital. Tikal was far more likely since it is named at Uaxactún. Therefore, one would expect most of the interred at Uaxactún to be orientated south towards Tikal. They were not. Whatever head orientation is correlated with, it is not regional capitals.

5) It is now known that the ancient and colonial Maya associated cardinal

directions with, among other things, years of the calendar (Tedlock 1982: 141; Tozzer 1941: 137 and note 635). North was associated with Muluc years, east with Kan years, south with Cauac years and west with Ix years. Could it be that as with modern day Chinese astrology the year of birth of an individual was used in making associations with animals, colours and directions thought to have been appropriate for that year? If so, then is it conceivable that upon death individuals would have been orientated in the direction associated with the year of their birth? However possible and intriguing, I believe it most unlikely. There ought to have been a more even distribution of the orientation of interred rather than having the prevalent orientations now observed. It would be rather peculiar to find 91% of Barton Ramie residents to have been born during Cauac years, or most residents of Tikal, Uaxactún and Palenque to have been born during Muluc years, or most of Dzibilchaltun and Seibal to have been born during Kan years. And nowhere were there many interred to the west. It seems most unlikely that hardly anyone was born during Ix years. Furthermore, even if it were the case that one's orientation at death was associated with the year of birth, it would be difficult to demonstrate archaeologically.

6) Evidence supplied by Landa (*ibid.*: 99) and Soustelle (1935) indicate that the Lacandon Maya practised totemism, i.e. the family bore an animal name associated with the paternal line. Landa also indicates that families privately worshipped many idols in the forms of animals, e.g. toads, frogs, fish and eagles (Tozzer 1941:110 and note 496). Could this indicate the worship of the totems of the clans? And if totemism was practised by the ancient Maya, could it have been that upon one's death one would have been orientated in the direction associated with the totem animal or the direction in which one was born? This sounds intriguing but there are problems.

Firstly, there is no way of really demonstrating this because there is no evidence that the Maya associated a direction with a totem animal. Sec-

ondly, how could one prove archaeologically which Maya village someone was from? Thirdly, though such a connection would explain the prevailing orientation at small sites where the majority of a population would have been from the same general area and clan, it would not for larger sites where an extensive mix of population would occur. Fourthly, it would not explain why there were so few people from the west of any site nor why so few totems were associated with the west. (The latter may be explained by the fact the west was associated with death (Coggins 1975: 17) and no living clan would want their totem associated with the direction of death. But this begs the question that if the west was associated with death, why was everyone not orientated in that direction?) Thus, this explanation seems implausible, as well as undemonstrable.

7) Finally, were the interred simply orientated with the nearest Ceiba tree? This may seem a flippant question but it is known from Landa that the Yucatan Maya considered the Ceiba as the means by which dead ancestors ascended to the heaven of the next world (Tozzer 1941: 131-32 and note 616). If the ancient Maya looked upon the Ceiba in a similar vein, could it be that individuals were orientated towards the nearest Ceiba tree to facilitate a speedy ascent to heaven? If it were true it would be difficult to prove but our data do not support its likelihood in any case. Firstly, it is unlikely that most Ceibas were south, north or east of buildings, and rarely to the west. Secondly, it is unlikely that most Ceibas had been east of temples at Uaxactún and Altar de Sacrificios and to the south at Altun Ha. Thirdly, why were the contemporary interred in the same structure or burial orientated in different directions? Were there several Ceibas nearby in such instances? Not very demonstrable, but probably not very likely either.

So here have been presented 7 possible alternatives to explain this anomalous and seemingly significant situation of prevalent site head orien-

tations. None is a sufficient explanation. Therefore, we are left with a regional pattern of a custom which is probably significant but whose significance is obscure and elusive.

This analysis demonstrates that few of these suspected regional practices were in fact regional or significant. Only the following traits could be considered regional or site specific:

- 1) the variation in prevailing head orientations;
- 2) the prevalence for the extended position for burial at Altun Ha, Baking Pot and Barton Ramie, and flexed at Copan;
- 3) the reuse of graves at Palenque and Toniná;
- 4) the prevalence of crypts at Dzibilchaltun;
- 5) the possible existence of unused graves (but whose presence is probably not related to any mortuary practice).

The significance of these customs is not certain. The other suspected regional customs were anomalies created by sampling error and excavation bias. What this reveals is the wide geographical range of lowland Maya burial customs. There are variations to be sure, but the variations are no more than unusually high or low instances of traits shared throughout our sample. Definite regional customs are few.

However, I thought it might be interesting to compare the high and low incidence of these customs between the sites to see which sites cluster with which on a presence/absence basis of these traits (Table 113):

- 1) Palenque, Toniná and Piedras Negras - Palenque and Toniná share at least 6 traits and each shares at least 4 with Piedras Negras.
- 2) Uaxactún, Tikal and San José - Uaxactún and Tikal share 4 customs, Uaxactún and San José share 4, and Tikal and San José share 2 customs.
- 3) Barton Ramie, Baking Pot & Benque Viejo - These sites share 1 to 3 traits.
- 4) Altar de Sacrificios & Seibal - They share at least 3 practices.

Table 113: Site distribution of unusually high or low instances of Pan Maya burial customs and the few regional customs

Site	Customs
Mountain Cow	head orientation to the NE; mandible only burials
Holmul	head orientation to the S
Copan	head orientation to the E; flexed; no bowl over skull; minimal evidence for sacrifice
Benque Viejo	head orientation to the S
Baking Pot	head orientation to the S; extended; few bowl over skull; sacrifice
Barton Ramie	head orientation to the S; extended; few bowl over skull; minimal sacrifice
San José	head orientation to the S; flexed; many bowl over skull; shell over skull; dedicatory cache - urn type burials
Uaxactún	head orientation to N; flexed; bowl over skull; shell over skull; face removal; dedicatory cache - urn type burial; many sacrifice
Tikal	head orientation to N; extended; bowl over skull; shell over skull; combination of primary and secondary interred burials; skull (face) removal
Altun Ha	head orientation to S & E; extended; combination of primary and secondary interred burials; adult & child burials; shell over skull; few bowl over skull; much sacrifice
Dzibilchaltun	crypt graves; head orientation to E; many bowl over skull; dedicatory cache - urn type burials; combination of primary and secondary interred burials; face removal; adult and child burials; much sacrifice
Seibal	head orientation to E; flexed; unfurnished Terminal Classic graves

Table 113: Site distribution of unusually high or low instances of Pan Maya burial customs and the few regional customs

Site	Customs
Altar de Sacrificios	head orientation to E; flexed; many bowl over skull; shell over skull; adult & child burials; much sacrifice; unfurnished Terminal Classic graves
Piedras Negras	head orientation to N; extended; no bowl over skull; few pots
Palenque	head orientation to N; extended; no bowl over skull; few pots; reuse of graves; crypt graves
Toniná	head orientation to N; extended; no bowl over skull; few pots; reuse of graves; crypt graves; sacrifice

5) Altun Ha - It is difficult to classify this site into a group as it shares 3 customs with San José and Tikal, 2 with Uaxactún, 3 with Dzibilchaltun, 4 with Altar de Sacrificios and 1 or more with the Belizean sites. It is sort of betwixt and between.

6) Dzibilchaltun - Given that Dzibilchaltun shares 3 customs with Tikal, 5 with Uaxactún, 3 with Altun Ha and 5 with Altar de Sacrificios, it too is difficult to classify. If anything, the Dzibilchaltun data are useful in illustrating the wide distribution of lowland Maya burial customs.

7) Copan - The few unusually high or low incidence customs it has are shared with 2 different groups: Altar & Seibal, and Palenque, Toniná and Piedras Negras.

8) Mountain Cow and Holmul - There are too few and too unreliable data to classify either of these sites.

The only sites with traits fairly unique to its group were Palenque, Toniná and Piedras Negras.

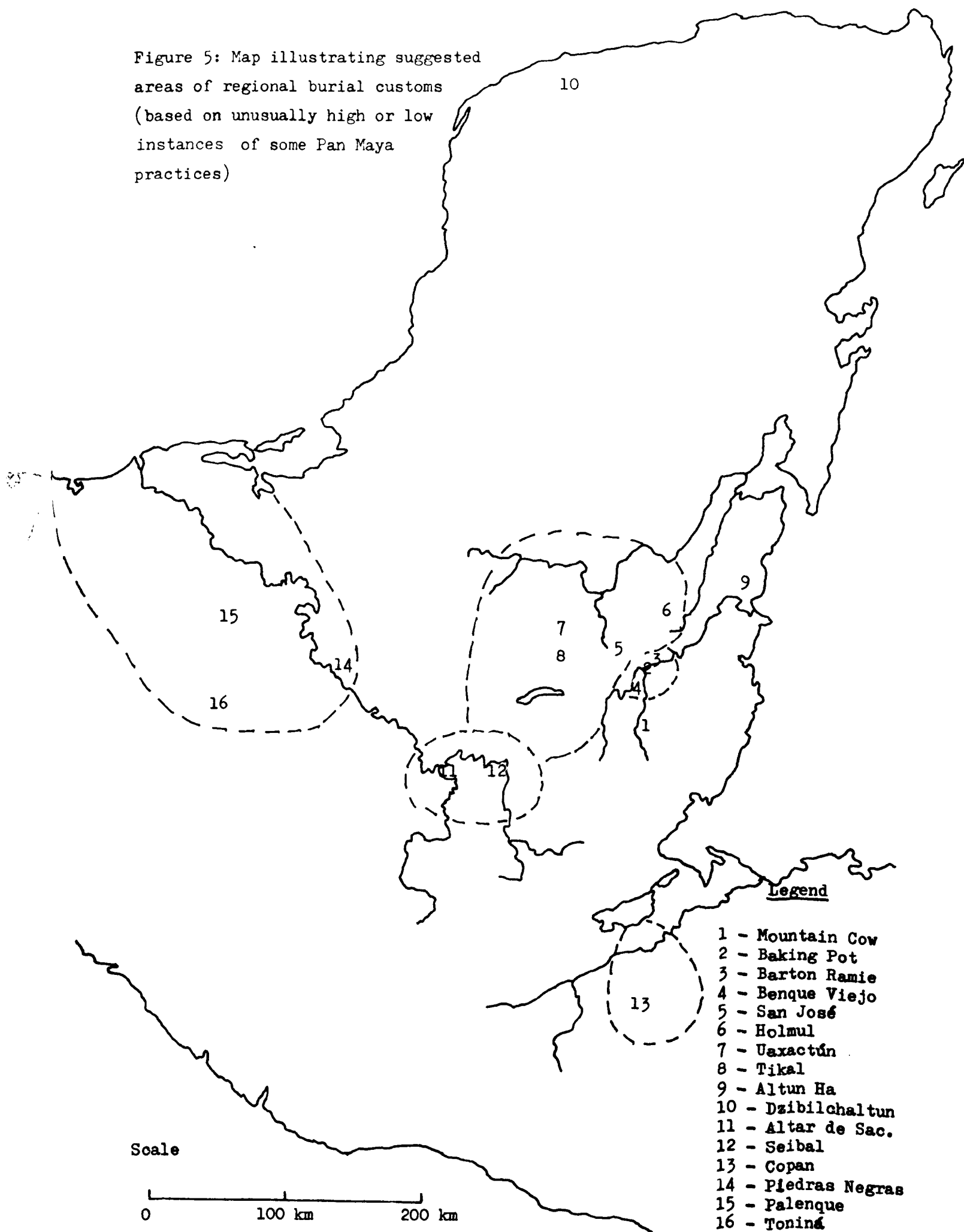
Figure 5 shows how the clustering of these sites into groups looks on a map. If it looks familiar that is because there is considerable overlap and similarity with the the distribution of principal architectural styles of the lowlands (Fig. 4). The only real difference between the two is that Piedras Negras is placed in a different area from Palenque and Toniná in the architecture map. But Piedras Negras does share 3 important architectural traits with Palenque - stucco decoration, thin walls, and multiple doorways (Proskouriakoff 1963: 16). This similarity in architecture and burial customs may suggest that the distinction between the Western Area and the Usumacinta River Area need not necessarily be so. I suspect, however, that any lack of perfect fit of regions under these different parameters results from:

a) the fact that most burial customs were universally practised throughout the lowlands and are not as sensitive an indicator as architectural style

Figure 4: Map illustrating the areas of primary architectural styles of the lowland Maya



Figure 5: Map illustrating suggested areas of regional burial customs (based on unusually high or low instances of some Pan Maya practices)



in isolating regional traits.

b) The difference in incidence of some burial customs between sites is accountable by differences in the size of population and the status of individuals. The larger the site, the more the population and the greater the variety of wealth and status, thus producing, more observable burial practices. At smaller sites, the reverse occurs.

c) Other differences in site incidence of practices is accountable by sampling error and excavation bias.

Nevertheless, the overlapping similarities of the maps are striking.

CHAPTER FOURTEEN

CONCLUSIONS

Conclusions

The Classic lowland Maya have been shown to have instituted a retinue of practices (and rituals) in association with the burial of the dead. Most of these practices were, in fact, established throughout the Maya lowlands. With a few exceptions, site specific or regional customs are best considered unusually high or low instances of Pan Maya practices, the unusually high or low incidence probably resulting from sampling error.

People of eminent wealth and social status attracted the most attention in the manner of burial. Such people were placed in elaborate graves and buried in the temples or ceremonial platforms of the central precincts. The wealth of artefacts many of these graves contained and the fact that the interred were adorned in the finery that represented their station in life suggests they were expected to retain a life of similar wealth and status in the next world. More important, it indicates that this was hereditary wealth, not acquired, thus confirming the iconographic and artistic evidence of an ancient Maya elite. Indeed, nine of the burials are known to be of kings, and a number of others are suspected to be.

It is from these burials of the elite that the apparent existence of ancestor worship is revealed. Most eminent persons were buried with some sort of construction over the grave which was intended to act as a memorial to the deceased. These memorials ranged in size from simple altars, stair blocks or platforms, to entire temples. The construction of memorials to the ancestors of the elite was the stimulus for the massive construction projects in the ceremonial centres. For the Maya at least, the idea of monumentality and ancestors was closely linked.

The presence of sacrificed individuals accompanying eminent persons in some interments suggests that ritual sacrifice was performed at the time of death or burial. Furthermore, carbon and charcoal deposits found at a

few of these memorials suggest rituals were conducted at the time of interment and at certain times thereafter. Rituals performed at the time of burial, including sacrifice, were conducted in order to assist the passage of the deceased from this world to the next. Rituals performed thereafter were in order that the new generation of ruling elite could continue to communicate with the now dead ancestors. It is probably during the latter that much of the human sacrifice inferred by the burial data was done. The burial data confirm the acts of sacrifice and the rites of the vision quest depicted in the ancient Maya art and iconography. The removal of facial bones or crania from the deceased indicates that Landa's observations of the actual skulls of ancestors being retained for the purposes of worship had a considerable antiquity.

The evidence for ancestor worship and sacrifice among the common folk is much more limited in extent and scale. But we do find buildings, called 'household shrines', that were often located on the eastern perimeter of residential plazas and specially constructed to house the burials of the wealthier residents of these plazas. The interments are rather well furnished and do often have an altar, small construction, or even the household shrine, itself, placed above the grave as a memorial. Even some residential burials had altars or benches constructed above the graves. Evidence of sacrifice exists and the removal of facial bones or crania of the deceased for the possible purposes of worship was found. The fact that the material evidence for ancestor worship is much less and not as grand a scale for the common population does not necessarily mean it was less important or prevalent. It merely indicates that the larger, more concrete and permanent memorials were beyond their means. Since land and wealth inheritance were important to any lineage or family, regardless of status, enshrining the ancestors and continued veneration of them would have been

an accepted social and religious policy throughout the society. Death and burial then, were matters of great importance to the ancient Maya.

B I B L I O G R A P H Y

Bibliography

- Adams, R.E.W., 1970, "Suggested Classic period occupational specialization in the southern Maya lowlands," in Monographs and Papers in Maya Archaeology, Papers of the Peabody Museum, Harvard University, vol. 61.
- Adams, R.E.W. & A.S. Trik, 1961, "Temple I (Str. 5D-1): post-constructional activities," in Tikal Reports, no. 7. Museum Monograph 20, University Museum, University of Pennsylvania.
- Andrews, E.W., IV & E.W. Andrews, V, 1980, "Excavations at Dzibilchaltun, Yucatan, Mexico," in Middle American Research Institute, Tulane University, Pub. 48.
- Aveni, A. & H. Hartung, 1986, "Maya city planning and the calendar," in Transactions of the American Philosophical Society, vol. 7, part 7.
- Becker, M.J., 1971, The Identification of a Second Plaza Plan at Tikal, Guatemala, and Its Implications for Ancient Maya Social Complexity, (Ph.D. Thesis, University of Pennsylvania).
- Becker, M.J., 1986, "El patrón del asentamiento en Tikal, Guatemala, y otros sitios mayas de las tierras bajas: implicaciones para el cambio cultural," in Mayab, no. 2. Sociedad Espanola de Estudios Mayas.
- Becquelin, P. & C.F. Baudiez, 1979, "Toniná: une citié Maya du Chiapas (Mexique)," en Etudes Mesoaméricaines, vol. 6, tome I. Mexico: Mission Archéologique et Ethnologique Française au Mexique.
- Benavides C., A., Coba: una ciudad prehispánica de Quintana Roo. Guia Oficial. Instituto Nacional de Antropologia e Historia.
- Blom, F. & O. La Farge, 1925-27, Tribes and Temples, vols. 1 & 2. New Orleans: Tulane University.
- Brady, J.E. & A. Stone, 1986, "Naj Tunich: entrance to the Maya Underworld," in Archaeology, vol. 39, no. 6: 18.
- Bullard, W.R., 1965, "Stratigraphic excavations at San Estevan, Northern British Honduras," in Royal Ontario Museum Art & Archaeology

- Occasional Papers, no. 9, University of Toronto.
- Bullard, W.R. & M.R. Bullard, 1965, "Late Classic finds at Baking Pot, British Honduras," in Royal Ontario Museum Art & Archaeology Occasional Papers, no. 8, University of Toronto.
- Cancian, F., 1965, Economics and Prestige in a Maya Community: the Religious Cargo System in Zinacantan. Stanford: Stanford University Press.
- Carmack, R.M., 1981, The Quiché Mayas of Utatlán: The Evolution of a Highland Guatemala Kingdom. Norman: University of Oklahoma Press.
- Chase, D.F., 1985, "Ganned, but not forgotten: Late Postclassic archaeology and ritual at Santa Rita Corozal, Belize," in A.F. Chase & P.M. Rice (eds.) The Lowland Maya Postclassic. Austin: University of Texas Press.
- Coe, M.D., 1973, The Maya Scribe and His World. New York: The Grolier Club.
- Coe, M.D., 1978, Lords of the Underworld. Princeton: Princeton University Press.
- Coe, M.D., 1982, Old Gods and Young Heroes: The Pearlman Collection of Maya Ceramics. Jerusalem: Israel Museum.
- Coe, W.R., 1959, "Piedras Negras archaeology: artefacts, caches and burials," in Museum Monograph 4, University Museum, University of Pennsylvania.
- Coe, W.R., 1962, "A summary of excavation and research at Tikal, Guatemala: 1956-61," in American Antiquity, vol. 27: 479.
- Coe, W.R., 1963, "A summary of excavation and research at Tikal, Guatemala: 1962," in Estudios de Cultura Maya, vol. 3: 41.
- Coe, W.R., 1965, "Tikal, Guatemala, and emergent Maya civilization," in Science, vol. 147: 1401.
- Coe, W.R., 1965a, "Tikal: ten years of study of a Maya ruin in the lowlands of Guatemala," in Expedition, vol. 8, no. 1: 5-56.

- Coe, W.R., 1967, Tikal: A Handbook of the Ancient Maya Ruins. Philadelphia: The University Museum, University of Pennsylvania.
- Coe, W.R. & V.L. Broman, 1958, "Excavations in the Stela 23 Group," in Tikal Reports, no. 2. Museum Monograph 15, University Museum, University of Pennsylvania.
- Coe, W.R. & J.J. McGinn, 1963, "Tikal: the North Acropolis and an early tomb," in Expedition, vol. 5, no. 2: 24.
- Coggins, C.C., 1975, Painting and Drawing Styles at Tikal: An Historical and Iconographic Reconstruction, (Ph.D. Thesis, Harvard).
- Folan, W.J., 1969, "Dzibilchaltun, Yucatan, Mexico: Structures 384, 385 and 386: a preliminary interpretation," in American Antiquity, vol. 34: 434-461.
- Gann, T.W.F., 1912, "Exploration carried on in British Honduras during 1908-9," in Liverpool Annals of Archaeology and Anthropology, vol. 4: 72.
- Gann, T.W.F., 1916, "Report on some excavations in British Honduras," in Liverpool Annals of Archaeology and Anthropology, vol. 7: 28.
- Gann, T.W.F., 1918, "The Maya Indians of southern Yucatan and northern British Honduras," in Bulletin of the Bureau of American Ethnology, no. 64, Smithsonian Institute.
- Gann, T.W.F. & M. Gann, 1939, "Archaeological investigations in the Corozal District of British Honduras," in Bulletin of the Bureau of American Ethnology, no. 123: 157, Smithsonian Institute.
- Gordon, G.B., 1896, "Prehistoric ruins of Copan, Honduras," in Memoirs of the Peabody Museum, Harvard University, vol. 1, no. 1.
- Hammond, N., 1982, Ancient Maya Civilization. Cambridge: Cambridge University Press.
- Hammond, N., 1985, Nohmul: A Prehistoric Maya Community in Belize. Excavations 1973-1983, 2 volumes. BAR International Series 250.

- Hammond, N., 1986, Excavation and Survey at Nohmul, Belize, 1986: A Preliminary Survey. Archaeology Program, Rutgers University.
- Haviland, W.A., 1967, "Stature at Tikal, Guatemala: implications for ancient Maya demography and social organization," in American Antiquity, vol. 32: 316.
- Haviland, W.A., 1981, "Dower houses and minor centres at Tikal, Guatemala: an investigation into the identification of valid units in settlement hierarchies," in W. Ashmore (ed.) Lowland Maya Settlement Patterns. Albuquerque: University of New Mexico Press.
- Haviland, W.A., 1985, "Excavations in small residential groups of Tikal: Groups 4F-1 and 4F-2," in Tikal Reports, no. 19, Museum Monograph 58, University Museum, University of Pennsylvania.
- Haviland, W.A., n.d., Musical Hammocks at Tikal: Problems of Reconstructing Household Composition. Paper presented at the 48th annual meeting of S.A.A., 27th April, 1983.
- Haviland, W.A., (in press), "Excavations in residential areas of Tikal: non-elite groups without shrines," to appear in Tikal Reports, no. 20, Museum Monographs, University Museum, University of Pennsylvania.
- Haviland, W.A., (in press), "Excavations in Group 7F-1: an elite residential group of Tikal," to appear in Tikal Reports, no. 22, Museum Monographs, University Museum, University of Pennsylvania.
- Hester, T.R., J.D. Eaton & H.J. Shafer, 1980, The Colha Project, Second Season: 1980 Interim Report. San Antonio: Centre for Archaeological Research.
- Houston, S.D. & P. Mathews, 1985, "The dynastic sequence at Dos Pilas, Guatemala," in M.G. Robertson (ed.) Fifth Palenque Round Table, vol. 7.
- Jones, C., W. Ashmore & R.J. Sharer, 1983, "The Quirigua project 1977 season," in Quirigua Reports, no. 11, paper no. 6, Museum Monograph 49, University Museum, University of Pennsylvania.

- Jones, C. & R.J. Sharer, 1980, "Archaeological investigations in the site core of Quirigua," in Expedition, vol. 23, no. 1: 11-19.
- Joyce, T.A., 1929, "Report on the British Museum expedition to British Honduras, 1929," in Journal of the Royal Anthropological Institute, vol 59: 439.
- Joyce, T.A., J. Cooper-Clark & J.E.S. Thompson, 1927, "Report on the British Museum expedition to British Honduras, 1927," in Journal of the Royal Anthropological Institute, vol. 57: 295
- Joyce, T.A., T. Gann, E.L. Gruning & R.C.E. Long, 1928, "Report on the British Museum expedition to British Honduras, 1928," in Journal of the Royal Anthropological Institute, vol. 58: 323.
- Kubler, G., 1974, "Mythological ancestries in Classic Maya inscriptions," in M.G. Robertson (ed.) Primera Mesa Redonda de Palenque, Part II.
- Licón, E.G., 1986, Los Mayas de la Gruta de Loltun, Yucatan, a Través de sus Materiales Arqueológicos. Colección Científica, Instituto Nacional de Antropología e Historia.
- Longyear, J.M., 1952, "Copan ceramics: a study of southeastern Maya pottery," in Carnegie Institution of Washington, pub. 597.
- Loten, H.S. & D.M. Pendergast, 1984, "A lexicon for Maya architecture," Archaeology Monograph 8, Royal Ontario Museum.
- Mackie, E.W., 1985, Excavations at Xunantunich and Pomona, Belize, in 1959-60: A Ceremonial Centre and an Earthen Mound of the Maya Classic Period. BAR International Series, 251.
- Marcus, J., 1976, Emblem and State in the Classic Maya Lowlands. Washington: Dumbarton Oaks.
- Matheny, R.T., 1986, "Investigations at El Mirador, Peten, Guatemala," in National Geographic Research, vol. 2, no. 3: 332-53.
- Mathews, P., 1980, "Notes on the dynastic sequence of Bonampak, part I," in M.G. Robertson (ed.) Third Palenque Round Table, Part 2.

- McArthur, H.S., 1977, "Releasing the dead: ritual and motivation in Aguacatec dances," in H.L. Neuenswander & D.E. Arnold (eds.) Cognitive Studies of Southern Mesoamerica. Dallas: Sil Museum of Anthropology, Pub. 3.
- Merwin, R.E. & G.C. Vaillant, 1932, "The ruins of Holmul," in Memoirs of the Peabody Museum, Harvard University, vol. 3, no. 2.
- Miles, S.W., 1957, "The sixteenth century Pokom-Maya: a documentary analysis of social structure and archaeological setting," in Transactions of the American Philosophical Society, n.s., vol. 47, pt. 4: 731-81.
- Miller, M.E., 1986, The Murals of Bonampak. Princeton: Princeton University Press.
- Moedano K., H., 1946, "Jaina: un cementario Maya," in Revista Mexicana de Antropológicas, Tomo 8: 217-242.
- Morley, S.G., 1983, The Ancient Maya, 4th edition. Revised and enlarged by R.J. Sharer. Stanford: Stanford University Press.
- Pendergast, D.M., 1969, "Altun Ha, British Honduras: the Sun God's tomb," in Royal Ontario Museum Art & Archaeology Occasional Papers, no. 19, University of Toronto.
- Pendergast, D.M., 1971, "Excavations at Eduardo Quiroz Cave, British Honduras," in Royal Ontario Museum Art & Archaeology Occasional Papers, no. 21, University of Toronto.
- Pendergast, D.M., 1979, Excavations at Altun Ha, Belize: 1964-70, Vol. 1. Toronto: Royal Ontario Museum Publications in Archaeology.
- Pendergast, D.M., 1982, Excavations at Altun Ha, Belize: 1964-70, Vol. 2. Toronto: Royal Ontario Museum Publications in Archaeology.
- Pendergast, D.M., (in press), Excavations at Altun Ha, Belize: 1964-70, Vol. 3. Toronto: Royal Ontario Museum Publications in Archaeology.

- Pina Chan, R., 1948, "Breve estudio sobre la funeraria de Jaina, Campeche," in Cuaderno no. 7, Gobierno del Estado de Campeche.
- Pollock, H.E.D., R.L. Roys, T. Proskouriakoff & A.L. Smith, 1962, "Mayapan, Yucatan, Mexico," in Carnegie Institution of Washington, pub. 619.
- Proskouriakoff, T., 1963, An Album of Maya Architecture, 2nd edition. Norman: University of Oklahoma Press.
- Rands, B. & R.L. Rands, 1961, "Excavations in a cemetery at Palenque," in Estudios de Cultura Maya, vol. 1: 87-106.
- Rathje, W.L., 1970, "Socio-political implications of lowland Maya burials: methodology and tentative hypothesis," in World Archaeology, vol. 1: 359.
- Ricketson, O.G., 1925, "Burials in the Maya area," in American Anthropologist, vol. 27: 381.
- Ricketson, O.G., 1931, "Excavations at Baking Pot, British Honduras," in Carnegie Institution of Washington, pub. 403, contribution no. 1.
- Ricketson, O.G. & E.B. Ricketson, 1937, "Uaxactún, Guatemala: Group E - 1926 - 1931," in Carnegie Institution of Washington, pub. 477.
- Robertson, M.G., 1983, The Sculpture of Palenque, Vol. I: The Temple of Inscriptions. Princeton: Princeton University Press.
- Robertson, M.G., 1985, The Sculpture of Palenque, Vol. II: The Early Buildings of the Palace and the Wall Paintings. Princeton: Princeton University Press.
- Robicsek, F., 1981, The Maya Book of the Dead: The Ceramic Codex. Charlottesville: University of Virginia Art Museum.
- Roys, R.L., 1943, "The Indian background of colonial Yucatan," in Carnegie Institution of Washington, pub. 548.
- Ruz L., A., 1952, "Exploraciones arqueológicas en Palenque (1949)," in Anales del Instituto Nacional de Antropología e Historia, Tomo 4: 49-60.

- Ruz L., A., 1952a, "Exploraciones en Palenque: 1950," in Anales del Instituto Nacional de Antropología e Historia, Tomo 5: 25-46.
- Ruz L., A., 1952b, "Exploraciones en Palenque: 1951," in Anales del Instituto Nacional de Antropología e Historia, Tomo 5: 47-66.
- Ruz L., A., 1954, "Exploraciones en Palenque: 1952," in Anales del Instituto Nacional de Antropología e Historia, Tomo 6: 79-110.
- Ruz L., A., 1958, "Exploraciones arqueológicas en Palenque: 1953," in Anales del Instituto Nacional de Antropología e Historia, Tomo 10: 69-116.
- Ruz L., A., 1958a, "Exploraciones arqueológicas en Palenque: 1954," in Anales del Instituto Nacional de Antropología e Historia, Tomo 10: 117-184.
- Ruz L., A., 1958b, "Exploraciones arqueológicas en Palenque: 1955," in Anales del Instituto Nacional de Antropología e Historia, Tomo 10: 185-240.
- Ruz L., A., 1958c, "Exploraciones arqueológicas en Palenque: 1956," in Anales del Instituto Nacional de Antropología e Historia, Tomo 10: 241-299.
- Ruz L., A., 1959, "Estudio preliminar de los tipos de enterramientos en el area Maya," in Actas XXXIII Congreso Internacional de Americanista, vol. 2: 183-199.
- Ruz L., A., 1962, "Exploraciones arqueológicas en Palenque: 1957," in Anales del Instituto Nacional de Antropología e Historia, Tomo 14: 35-90.
- Ruz L., A., 1965, "Tombs and funerary practices in the Maya lowlands," in R. Wauchope (ed.) Handbook of Middle American Indians, vol. 2, part 1: 441-461.
- Ruz L., A., 1968, Costumbras Funerarias de los Antigos Mayas. Mexico: Universidad Nacional Autónoma de México.

- Ruz L., A., 1973, "El Templo de las Inscripciones, Palenque," in Coleccion Cientifica Arqueologia del Instituto Nacional de Antropologia e Historia, vol. 7.
- Sabloff, J.A., 1975, "Excavations at Seibal, Department of Peten, Guatemala: the ceramics," in Memoirs of the Peabody Museum, Harvard University, vol. 13, no. 2.
- Satterthwaite, L., 1943-54, Piedras Negras Archaeology: Architecture. Philadelphia: University Museum, University of Pennsylvania.
- Saul, F.P., 1972, "The human skeletal remains of Altar de Sacrificios," in Papers of the Peabody Museum, Harvard University, vol. 63, no. 2.
- Schele, L., 1984, "Human sacrifice among the Classic Maya," in E.H. Boone (ed.) Ritual Human Sacrifice in Mesoamerica. Washington: Dumbarton Oaks.
- Schele, L. & M.E. Miller, 1986, The Blood of Kings: Dynasty and Ritual in Maya Art. Fort Worth: Kimbell Art Museum.
- Sharer, R.J., 1978, "Archaeology and history at Quirigua," in Journal of Field Archaeology, vol. 5: 51.
- Sharer, R.J., C. Jones, W. Ashmore & E.M. Schortman, 1979, "The Quirigua project 1976 season," in Quirigua Reports, no. 1, Museum Monograph 37, University Museum, University of Pennsylvania.
- Shook, E.M. & A.V. Kidder, 1961, "The painted tomb at Tikal," in Expedition, vol. 4, no. 1: 2.
- Smith, A.L., 1932, "Two recent ceramic finds at Uaxactún," in Carnegie Institution of Washington, pub. 436, contribution no. 5.
- Smith, A.L., 1937, "Structure A-XVIII, Uaxactún," in Carnegie Institution of Washington, pub. 483, contribution no. 20.
- Smith, A.L., 1950, "Uaxactún, Guatemala: excavations of 1931-37," in Carnegie Institution of Washington, pub. 588.

- Smith, A.L., 1972, "Excavations at Altar de Sacrificios: architecture, settlement, burials and caches," in Papers of the Peabody Museum, Harvard University, vol. 62, no. 2.
- Smith, A.L., 1973, Uaxactún: A Pioneering Excavation in Guatemala. Addison-Wesley Module in Anthropology, no. 40.
- Smith, A.L., 1982, "Major architecture and caches," in G.R. Willey (ed.) Excavations at Seibal, Department of the Peten, Guatemala. Memoirs of the Peabody Museum, Harvard University, vol. 15, no. 1.
- Smith, R.E., 1937, "A study of Structure A-I complex at Uaxactún, Peten, Guatemala," in Carnegie Institution of Washington, pub. 456, contribution no. 19.
- Solecki, R., 1971, Shanidar: The First Flower People. New York: Alfred Knopf.
- Soustelle, J., 1935, "Le totemisme des Lacandones," in Maya Research, vol. 2: 325-44.
- Tedlock, B., 1982, Time and the Highland Maya. Albuquerque: University of New Mexico Press.
- Thompson, J.E.S., 1931, "Archaeological investigations in the southern Cayo District, British Honduras," in Field Museum of Natural History, Anthropological Series, vol. 17, no. 3, Chicago.
- Thompson, J.E.S., 1939, "Excavations at San José, British Honduras," in Carnegie Institution of Washington, pub. 506.
- Thompson, J.E.S., 1940, "Late ceramic horizons at Benque Viejo, British Honduras," in Carnegie Institution of Washington, pub. 528, contribution no. 35.
- Thompson, J.E.S., 1966, The Rise and Fall of Maya Civilization, 2nd edition. Norman: University of Oklahoma Press.
- Tourtellot, G., 1982, "Appendix A: burials," in Ancient Maya Settlements at Seibal, Peten, Guatemala: Peripheral Survey and Excavation,

(Ph.D. Thesis, Harvard).

- Tourtellot, G., (in press), "Appendix: Seibal burials: a cultural analysis," in G.R. Willey (ed.) Excavations at Seibal, Department of the Peten, Guatemala. Memoirs of the Peabody Museum, Harvard University, vol. 17.
- Tozzer, A.M., 1907, A Comparative Study of the Mayas and the Lacadones. New York: Archaeological Institute of America.
- Tozzer, A.M., 1941, "Landa's Relacion de las cosas de Yucatán," in Papers of the Peabody Museum, Harvard University, vol. 18.
- Trik, A.S., 1963, "The splendid tomb of Temple I at Tikal, Guatemala," in Expedition, vol. 6, no. 1: 2.
- Van Gennep, A., 1960, The Rites of Passage. Chicago: University of Chicago Press.
- Wauchope, R., 1934, "House mounds of Uaxactún, Guatemala," in Carnegie Institution of Washington, pub. 436, contribution no. 7.
- Weeks, J.M., 1983, Chisalin: A Late Postclassic Maya Settlement in Highland Guatemala. BAR International Series, 169.
- Willey, G.R., W.R. Bullard, J.B. Glass & J.C. Gifford, 1965, "Prehistoric maya settlements in the Belize valley," in Papers of the Peabody Museum, Harvard University, vol. 54.
- Willey, G.R. & J.C. Gifford, 1964, "Pottery of the Holmul I style from Barton Ramie, Belize," in S.K. Lothrop (ed.) Essays in Pre-Columbian Art and Archaeology. Cambridge, Mass.: Harvard University Press.